SERIES 4
450

Plasma TV
user manual

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Model _____ Serial No. _____

SAMSUNG

Important Warranty Information Regarding Television Format Viewing

Wide screen format PDP Displays (16:9, the aspect ratio of the screen width to height) are primarily designed to view wide screen format full-motion video. The images displayed on them should primarily be in the wide screen 16:9 ratio format, or expanded to fill the screen if your model offers this feature and the images are constantly moving. Displaying stationary graphics and images on screen, such as the dark side-bars on nonexpanded standard format television video and programming, should be limited to no more than 5% of the total television viewing per week.

Additionally, viewing other stationary images and text such as stock market reports, video game displays, station logos, web sites or computer graphics and patterns, should be limited as described above for all televisions. **Displaying stationary images that exceed the above guidelines can cause uneven aging of PDP Displays that leave subtle, but permanent burned-in ghost images in the PDP picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars.**
On PDP models that offer picture sizing features, use these controls to view different formats as a full screen picture.

Be careful in the selection and duration of television formats used for viewing. Uneven PDP aging as a result of format selection and use, as well as burned-in images, are not covered by your Samsung limited warranty.

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Subject to the requirements, conditions, exclusions and limitations of the original Limited Warranty supplied with Samsung Electronics (SAMSUNG) products, and the requirements, conditions, exclusions and limitations contained herein, SAMSUNG will additionally provide Warranty Repair Service in the United States on SAMSUNG products purchased in Canada, and in Canada on SAMSUNG products purchased in the United States, for the warranty period originally specified, and to the Original Purchaser only.
The above described warranty repairs must be performed by a SAMSUNG Authorized Service Center. Along with this Statement, the Original Limited Warranty Statement and a dated Bill of Sale as Proof of Purchase must be presented to the Service Center. Transportation to and from the Service Center is the responsibility of the purchaser.
Conditions covered are limited only to manufacturing defects in material or workmanship, and only those encountered in normal use of the product.
Excluded, but not limited to, are any originally specified provisions for, in-home or on-site services, minimum or maximum repair times, exchanges or replacements, accessories, options, upgrades, or consumables.
For the location of a SAMSUNG Authorized Service Center, please call toll-free:
In the United States : 1-800-SAMSUNG (1-800-726-7864) **In Canada : 1-800-SAMSUNG**

➢ See the warranty card for more information on warranty terms.

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User Instructions

Screen Image retention

Do not display a still image (such as on a video game) on the plasma display panel for more than several minutes as it can cause screen image retention. This image retention is also known as "screen burn". To avoid such image retention, refer to page 23 of this manual to reduce the degree of brightness and contrast of the screen when displaying a still image.

Altitude

The PDP can only operate normally at heights under 6500ft.

Heat on the top of the Plasma TV

The top side of the product may be hot after long periods of use as heat dissipates from the panel through the vent hole in the upper part of the product.
This is normal and does not indicate any defect or operation failure of the product.
However, children should be prevented from touching the upper part of the product.

The product is making a 'cracking' noise.

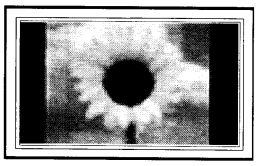
A 'cracking' noise may occur when the product contracts or expands due to a change of surrounding environment such as temperature or humidity. This is normal and not a defect of the unit.

Cell Defects

The PDP uses a panel consisting of 1,230,000(SD-level) to 3,150,000(HD-level) pixels which require sophisticated technology to produce. However, there may be a few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.

Avoid operating the TV at temperatures below 5°C (41°F)

A still image displayed too long may cause permanent damage to the PDP Panel.



Watching the Plasma TV in 4:3 format for a long period of time may leave traces of borders displayed on the left, right and center of the screen caused by the difference of light emission on the screen.
Playing a DVD or a game console may cause similar effect to the screen.
Damages caused by the above effect are not covered by the Warranty.

Afterimage on the Screen.

Displaying still images from Video games and PC for longer than a certain period of time may produce partial after-images.
To prevent this effect, reduce the 'brightness' and 'contrast' when displaying still images for a long time.

Warranty

Warranty does not cover any damage caused by image retention.
Burn-in is not covered by the warranty.

English

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Symbols

Press | One-Touch Button | Note

General Information

List of Features

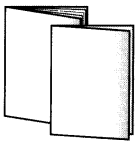
- Adjustable picture settings that can be stored in the TV's memory.
- Automatic timer to turn the TV on and off.
- A special sleep timer.
- V-Chip function.
- Excellent Digital Interface & Networking :
  With a built-in HD digital tuner, non-subscription HD broadcasts can be viewed with no Set-Top Box needed.
- Excellent Picture Quality
  - DNIe technology provides life-like clear images.
- SRS TruSurround XT
  - SRS TruSurround XT provides a virtual Dolby surround system.
- HDMI/DVI connection of your PC to this TV.

Accessories

Please make sure the following items are included with your TV. If any items are missing, contact your dealer.

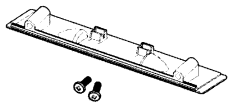
Remote Control (BN59-00687A) /
AAA Batteries (4301-000103)

Power Cord
(3903-000144)



Owner's Instructions /
Quick Setup Guide

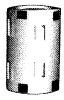
Ferrite Core for Headphone
(3301-001456)



Cover-Bottom / Screws (2ea)
(Refer to page 72)

Warranty Card /
Registration Card /
Safety Guide Manual

Cloth-Clean

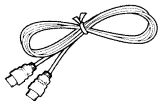


Ferrite Core for Power Cord
(3301-001305)

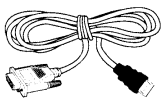
The following parts are sold separately and are available at most electronics stores.

➢ If you do not use a good quality cable, some noise may appear on the screen.

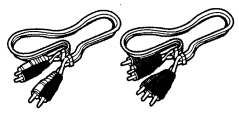
S-VIDEO Cable (BN39-00149A)



HDMI Cable (BN39-00641A)

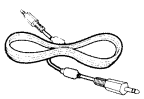


HDMI/DVI cable (BN39-00643A)

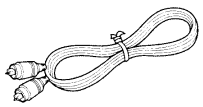


Component Cables (RCA)
(BN39-00279A)

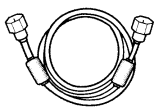
PC Cable (BN39-00115A)



PC Audio Cable (BN39-00061B)

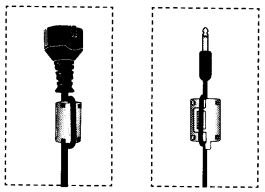


Optical Cable



Antenna Cable (BN39-00333A)

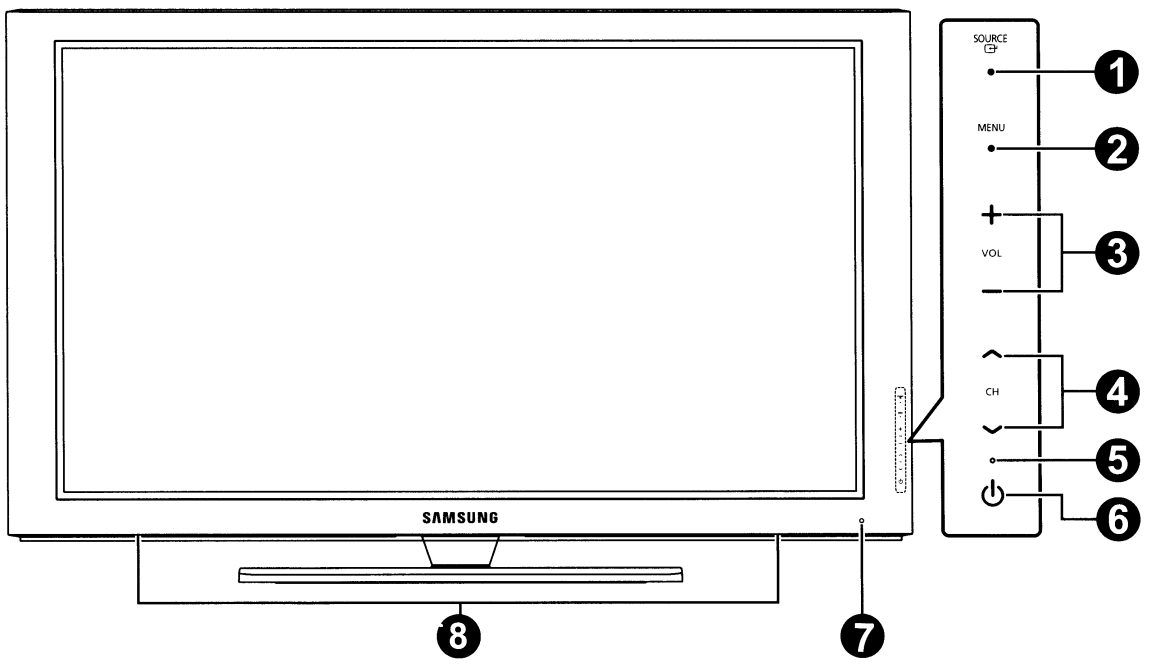
➢ **Ferrite Core (Power Cable, Headphone)**
The ferrite cores are used to shield the cables from interference.
When connecting a cable, open the ferrite core and clip it around the cable near the plug.



Viewing the Control Panel

Buttons on the Lower-Right Part of the Panel

The buttons on the lower-right panel control your TV's basic features, including the on-screen menu. To use the more advanced features, you must use the remote control.



Front Panel buttons
Touch each button to operate.

➢ The product color and shape may vary depending on the model.

❶ **SOURCE** ⏎
Toggles between all the available input sources (**TV**, **AV1**, **AV2**, **S-Video**, **Component1**, **Component2**, **PC**, **HDMI1**, **HDMI2**, **HDMI3**).

➢ In the on-screen menu, use this button as you would use the **ENTER** button on the remote control.

❷ **MENU**
Press to see an on-screen menu of your TV's features.

❸ **+ VOL –**
Press to increase or decrease the volume. In the on-screen menu, use the **+ VOL –** buttons as you would use the ◄ and ► buttons on the remote control.

❹ **∧ CH ∨**
Press to change channels.
In the on-screen menu, use the **∧ CH ∨** buttons as you would use the ▲ and ▼ buttons on the remote control.

❺ **Power Indicator**
Blinks and turns off when the power is on and lights up in stand-by mode.

❻ **⏻ POWER**
Press to turn the TV on and off.

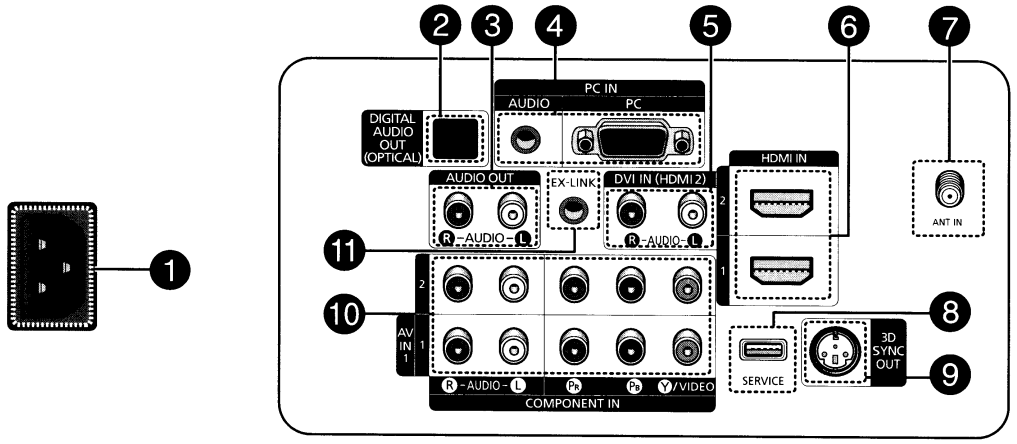
❼ **Remote Control Sensor**
Aim the remote control towards this spot on the TV.

❽ **Speakers**

Viewing the Connection Panel

Rear Panel Jacks

Use the rear panel jacks to connect A/V components that will be connected continuously, such as VCR or DVD players. For more information on connecting equipment, see pages 9-15. The product color and shape may vary depending on the model.



❶ **POWER IN**
Connect the supplied power cord.

❷ **DIGITAL AUDIO OUT (OPTICAL)**
Connect to a Digital Audio component.

❸ **AUDIO OUT (R/L)**
Audio outputs to external devices.

❹ **PC IN[PC]/[AUDIO]**
Connect to the video and audio output jack on your PC.

❺ **DVI IN (HDMI 2) (AUDIO-R/L)**
Connect to the DVI audio output jack of an external device.

❻ **HDMI IN 1, 2**
Connect to the HDMI jack of a device with an HDMI output. (HDMI2 supports HDMI-DVI IN and connection from a PC.)
- This input can also be used as a DVI connection with separate analog audio inputs. An optional HDMI/DVI cable will be necessary to make this connection.
- When using an optional HDMI/DVI adapter, the DVI analog audio inputs on your TV allow you to receive left and right audio from your DVI device.

❼ **ANT IN**
Uses a 75Ω Coaxial connector for an Air/Cable Network.

❽ **SERVICE**
For service only.

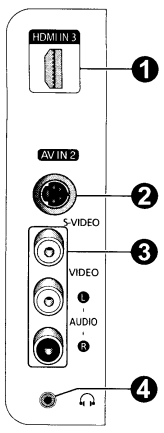
❾ **3D SYNC OUT**
Connect to 3D IR Emitter.

❿ **COMPONENT IN 1, 2 / AV IN 1**
Connects Component video/audio.
The COMPONENT IN 1 jack is also used as the AV IN 1 jack.
- Connect the video cable to the COMPONENT IN 1 [Y/VIDEO] jack and the audio cable to the COMPONENT IN [R-AUDIO-L] jacks.

⓫ **EX-LINK**
Connect this to the jack on the optional wall mount bracket. This will allow you to adjust the TV viewing angle using your remote control.

Side Panel Jacks

Use the left side panel jacks to connect a component that is used only occasionally, such as a camcorder or video game. The product color and shape may vary depending on the model.



❶ **HDMI IN 3**
Connect to the HDMI jack of a device with HDMI output.

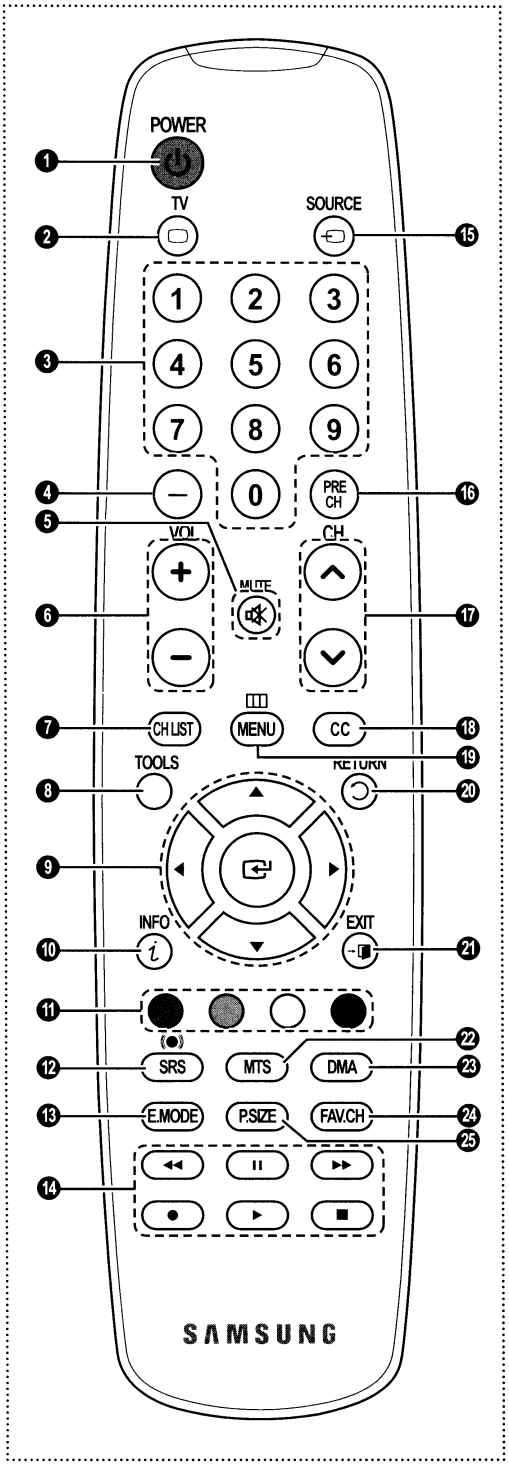
❷ **S-VIDEO (AV IN 2)**
S-Video input for external devices with an S-Video output.

❸ **AV IN 2**
Video and audio inputs for external devices.

❹ **HEADPHONE**
You can connect a set of headphones if you wish to watch a television program without disturbing other people in the room.

Remote Control

You can use the remote control up to a distance of about 23 feet from the TV.



❶ **POWER**
Turns the TV on and off.

❷ **TV**
Selects the TV mode directly.

❸ **NUMERIC BUTTONS**
Press to directly select a channel.

❹ **–**
Press to select additional channels (digital and analog) being broadcast by the same station. For example, to select channel "54-3", press "54", then press "–" and "3".

❺ **MUTE**
Press to temporarily cut off the sound.

❻ **VOL**
Press to increase or decrease the volume.

❼ **CH LIST**
Used to display Channel Lists on the screen.

❽ **TOOLS**
Use to quickly select frequently used functions.

❾ **UP▲/DOWN▼/LEFT◄/RIGHT►/ENTER**
Use to select on-screen menu items and change menu values.

❿ **INFO**
Press to display information on the TV screen.

⓫ **COLOR BUTTONS**
Use these buttons in the Channel list.

⓬ **SRS**
Selects SRS TruSurround XT mode.

⓭ **E.MODE**
Press to select the preset display and sound modes for sports, cinema and games.

⓮ Use these buttons in the DMA and Anynet+ modes.
(●: This remote can be used to control recording on Samsung recorders with the Anynet+ feature)

⓯ **SOURCE**
Press to display all of the available video sources.

⓰ **PRE-CH**
Tunes to the previous channel.

⓱ **CH**
Press to change channels.

⓲ **CC**
Controls the caption decoder.

⓳ **MENU**
Displays the main on-screen menu.

⓴ **RETURN**
Returns to the previous menu.

㉑ **EXIT**
Press to exit the menu.

㉒ **MTS**
Press to choose stereo, mono or Separate Audio Program (SAP broadcast).

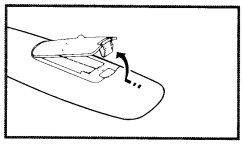
㉓ **DMA** (Digital Media Adapter)
Use this when connecting a Samsung DMA device through an HDMI interface and switching to DMA mode.
For more information on the operating procedures, refer to the user manual of the DMA.
➢ This button is available when "Anynet(HDMI-CEC)" is "On". (see page 65)

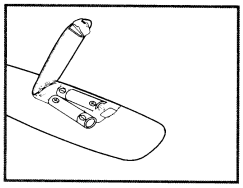
㉔ **FAV.CH**
Press to switch to your favorite channels.

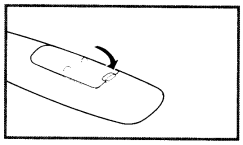
㉕ **P.SIZE**
Press to change the screen size.

➢ The performance of the remote control may be affected by bright light.

Installing Batteries in the Remote Control







1 Lift the cover at the back of the remote control upward as shown in the figure.

2 Install two AAA size batteries.
   - ➢ Make sure to match the "+" and "–" ends of the batteries with the diagram inside the compartment.
   - ➢ Do not mix battery types, i.e. alkaline and manganese.

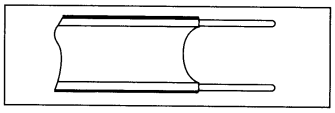
3 Close the cover as shown in the figure.
   - ➢ Remove the batteries and store them in a cool, dry place if you won't be using the remote control for a long time. The remote control can be used up to about 23 feet (7m) from the TV. (Assuming typical TV usage, the batteries last for about one year.)

➢ **If the remote control doesn't work, check the following:**

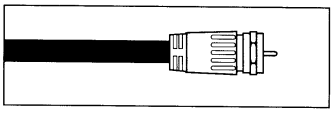
1. Is the TV power on?
2. Are the plus and minus ends of the batteries reversed?
3. Are the batteries drained?
4. Is there a power cut, or is the power cord unplugged?
5. Is there a special fluorescent light or a neon sign nearby?

Connections

Connecting VHF and UHF Antennas

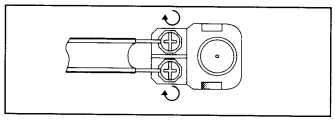


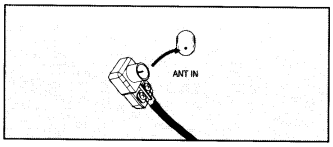
If your antenna has a set of leads that look like this, see "Antennas with 300 Ω Flat Twin Leads" below.



If your antenna has one lead that looks like this, see "Antennas with 75 Ω Round Leads".
If you have two antennas, see "Separate VHF and UHF Antennas".

Antennas with 300 Ω Flat Twin Leads



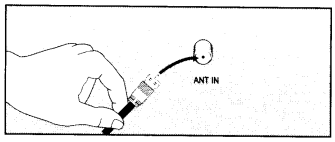


If you are using an off-air antenna (such as a roof antenna or "rabbit ears") that has 300 Ω twin flat leads, follow the directions below.

1 Place the wires from the twin leads under the screws on a 300-75 Ω adapter (not supplied).
   Use a screwdriver to tighten the screws.

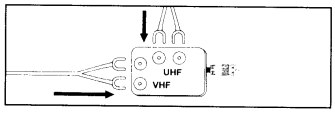
2 Plug the adaptor into the ANT IN terminal on the back of the TV.

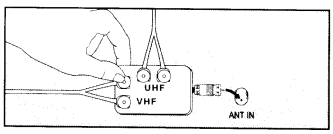
Antennas with 75 Ω Round Leads



1 Plug the antenna lead into the ANT IN terminal on the back of the TV.

Separate VHF and UHF Antennas





If you have two separate antennas for your TV (one VHF and one UHF), you must combine the two antenna signals before connecting the antennas to the TV. This procedure requires an optional combiner-adaptor (available at most electronics shops).

1 Connect both antenna leads to the combiner.

2 Plug the combiner into the ANT IN terminal on the bottom of the back panel.

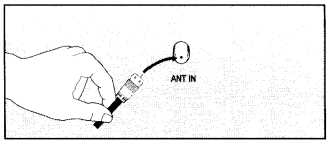
Connecting Cable TV

To connect to a cable TV system, follow the instructions below.

Cable without a Cable Box

1 Plug the incoming cable into the ANT IN terminal on the back of the TV.

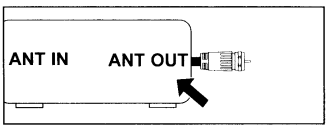
➢ Because this TV is cable-ready, you do not need a cable box to view unscrambled cable channels.



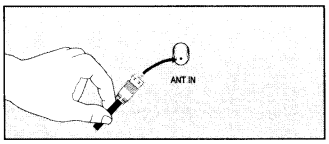
Connecting to a Cable Box that Descrambles All Channels

1 Find the cable that is connected to the ANT OUT terminal on your cable box.

➢ This terminal might be labeled "ANT OUT", "VHF OUT" or simply, "OUT".



2 Connect the other end of this cable to the ANT IN terminal on the back of the TV.

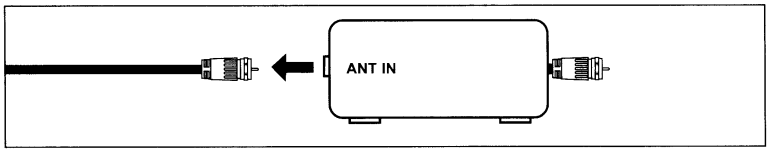


Connecting to a Cable Box that Descrambles Some Channels

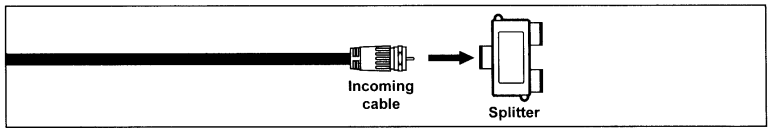
If your cable box descrambles only some channels (such as premium channels), follow the instructions below. You will need a two-way splitter, an RF (A/B) switch, and four lengths of Antenna cable. (These items are available at most electronics stores.)

1 Find and disconnect the cable that is connected to the ANT IN terminal on your cable box.

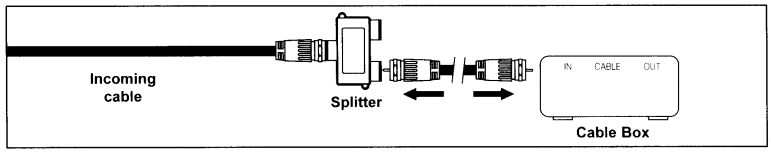
➢ This terminal might be labeled "ANT IN", "VHF IN" or simply, "IN".



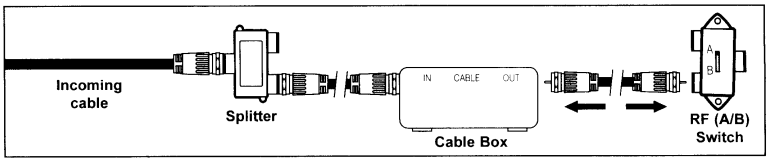
2 Connect this cable to a two-way splitter.



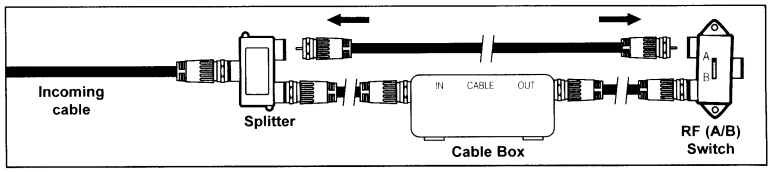
3 Connect an Antenna cable between an OUTPUT terminal on the splitter and the IN terminal on the cable box.



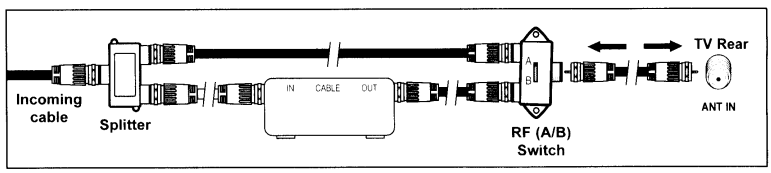
4 Connect an Antenna cable between the ANT OUT terminal on the cable box and the B–IN terminal on the RF(A/B) switch.



5 Connect another cable between the other OUT terminal on the splitter and the A–IN terminal on the RF (A/B) switch.



6 Connect the last Antenna cable between the OUT terminal on the RF (A/B) switch and the ANT IN terminal on the rear of the TV.

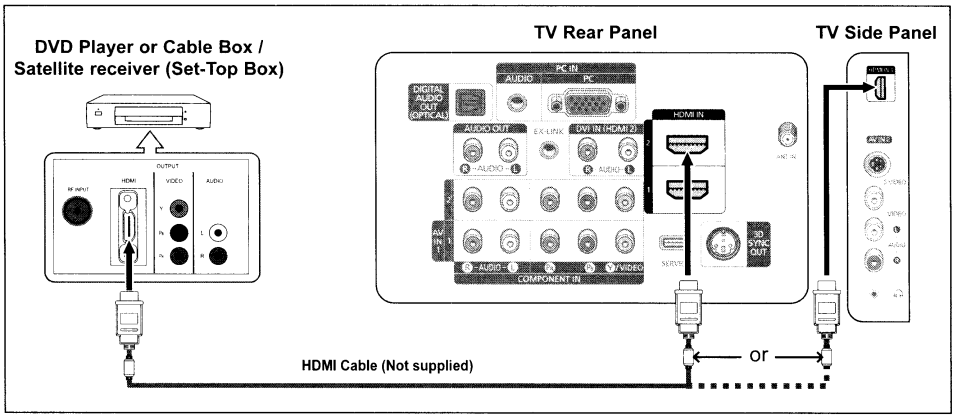


After you have made this connection, set the A/B switch to the "A" position for normal viewing. Set the A/B switch to the "B" position to view scrambled channels. (When you set the A/B switch to "B", you will need to tune your TV to the cable box's output channel, which is usually channel 3 or 4.)

Connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box) via HDMI

This connection can only be made if there is an HDMI Output jack on the external device. This connection will provide the highest quality picture.

1 Connect an HDMI Cable between the HDMI IN(1, 2 or 3) jack on the TV and the HDMI jack on the DVD Player or Cable Box / Satellite receiver (Set-Top Box).



What is HDMI?

- HDMI, or high-definition multimedia interface, is an interface that enables the transmission of digital audio and video signals using a single cable without compression.
- The difference between HDMI and DVI is that the HDMI device is smaller in size and has the HDCP (High Bandwidth Digital Copy Protection) coding feature installed.

➢ Each DVD Player or Cable Box / Satellite receiver (Set-Top Box) has a different back panel configuration.

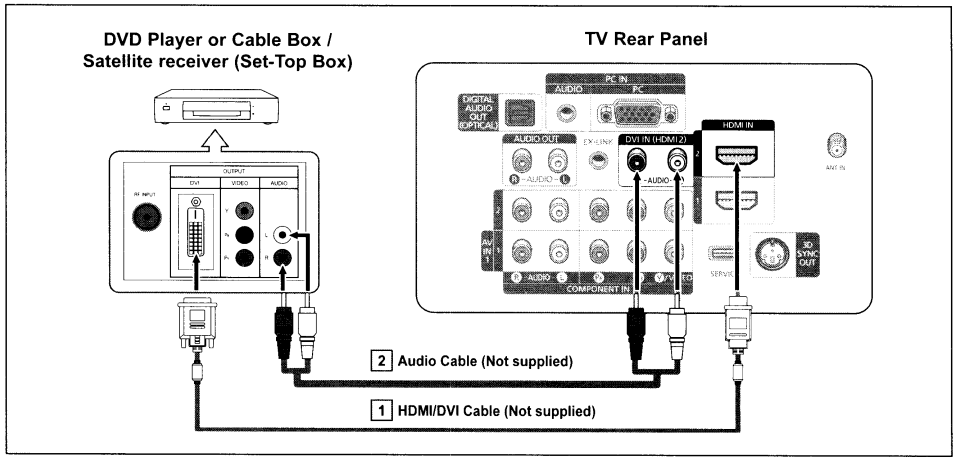
➢ When connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box), match the color of the connection terminal to the cable.

Connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box) via DVI

This connection can only be made if there is a DVI Output jack on the external device.

1 Connect a HDMI/DVI Cable or DVI-HDMI Adapter between the HDMI IN 2 jack on the TV and the DVI jack on the DVD Player or Cable Box/Satellite receiver (Set-Top Box).

2 Connect Audio Cables between the DVI IN (HDMI 2) [R-AUDIO-L] jack on the TV and the AUDIO OUT jacks on the DVD Player or Cable Box/Satellite receiver (Set-Top Box).


DVD Player or Cable Box / Satellite receiver (Set-Top Box)
TV Rear Panel
2 Audio Cable (Not supplied)
1 HDMI/DVI Cable (Not supplied)

➢ Each DVD Player or Cable Box / Satellite receiver (Set-Top Box) has a different back panel configuration.

➢ When connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box), match the color of the connection terminal to the cable.

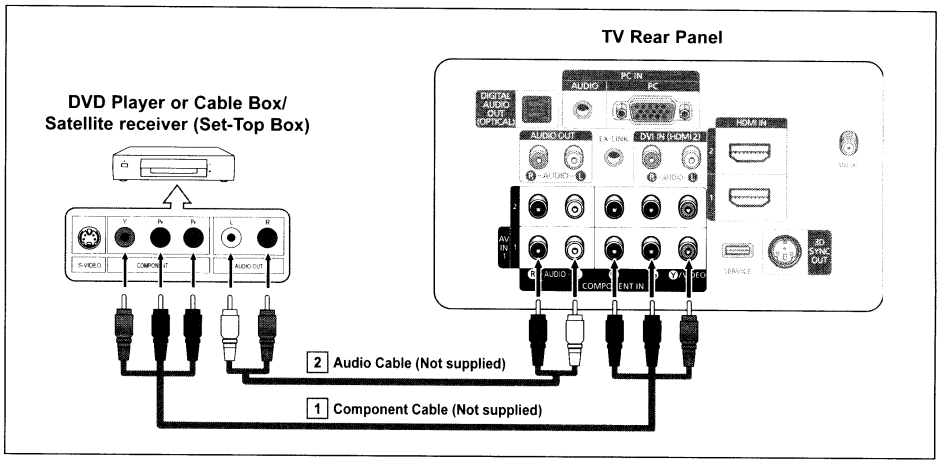
➢ When using an HDMI / DVI cable connection, you must use the HDMI IN 2 jack.

Connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box) via Component cables

The rear panel jacks on your TV make it easy to connect a DVD Player or Cable Box / Satellite receiver (Set-Top Box) to your TV.

1 Connect Component Cables between the COMPONENT IN (1 or 2) [Y, P_B, P_R] jacks on the TV and the COMPONENT [Y, P_B, P_R] jacks on the DVD Player or Cable Box / Satellite receiver(Set-Top Box).

2 Connect Audio Cables between the COMPONENT IN (1 or 2) [R-AUDIO-L] jacks on the TV and the AUDIO OUT jacks on the DVD Player or Cable Box / Satellite receiver (Set-Top Box)


TV Rear Panel
DVD Player or Cable Box/
Satellite receiver (Set-Top Box)
2 Audio Cable (Not supplied)
1 Component Cable (Not supplied)

➢ Component video separates the video into Y (Luminance (brightness)), P_B (Blue) and P_R (Red) for enhanced video quality. Be sure to match the component video and audio connections. For example, if connecting the video cable to COMPONENT IN 1, connect the audio cable to COMPONENT IN 1 also.

➢ Each DVD Player or Cable Box / Satellite receiver (Set-Top Box) has a different back panel configuration.

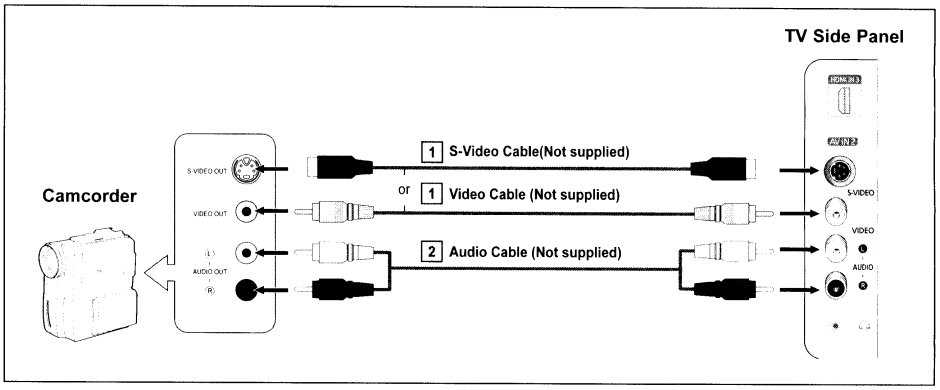
➢ When connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box), match the color of the connection terminal to the cable.

Connecting a Camcorder

The side panel jacks on your TV make it easy to connect a camcorder to your TV. They allow you to view the camcorder tapes without using a VCR

1 Connect a Video Cable (or S-Video Cable) between the AV IN 2 [VIDEO] (or S-VIDEO) jack on the TV and the VIDEO OUT jack on the Camcorder.

2 Connect Audio Cables between the AV IN 2 [L-AUDIO-R] jacks on the TV and the AUDIO OUT jacks on the Camcorder.



➢ Each Camcorder has a different back panel configuration.

➢ When connecting a Camcorder, match the color of the connection terminal to the cable.

Connecting a VCR

Video Connection

These instructions assume that you have already connected your TV to an antenna or a cable TV system (according to the instructions on pages 9~10). Skip step 1 if you have not yet connected to an antenna or a cable system.

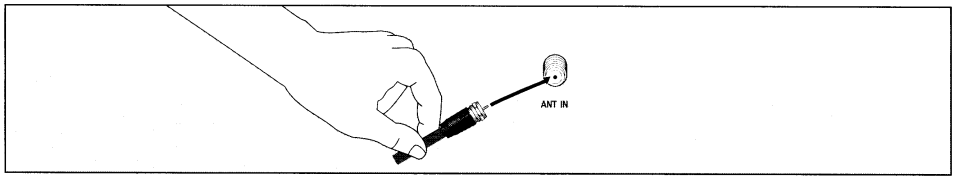
1 Unplug the cable or antenna from the back of the TV.

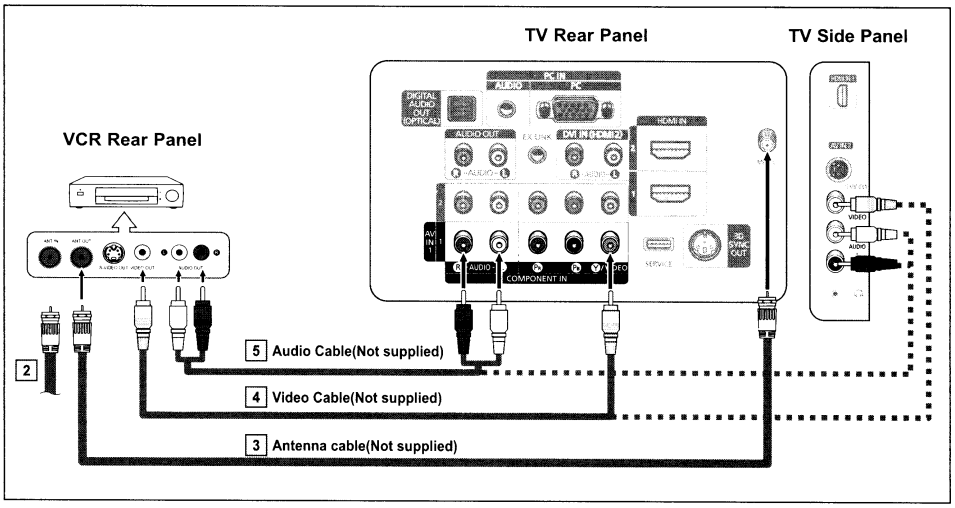
2 Connect the cable or antenna to the ANT IN terminal on the back of the VCR.

3 Connect an Antenna Cable between the ANT OUT terminal on the VCR and the ANT IN terminal on the TV.

4 Connect a Video Cable between the VIDEO OUT jack on the VCR and the AV IN 1 [Y/VIDEO] or AV IN 2 [VIDEO] jack on the TV.

5 Connect Audio Cables between the AUDIO OUT jacks on the VCR and the AV IN 1 (or AV IN 2) [R-AUDIO-L] jacks on the TV.





➢ If you have a "mono" (non-stereo) VCR, use a Y-connector (not supplied) to connect to the right and left audio input jacks of the TV. Alternatively, connect the cable to the "R" jack.
If your VCR is stereo, you must connect two cables.
➢ Each VCR has a different back panel configuration.
➢ When connecting a VCR, match the color of the connection terminal to the cable.
➢ When connecting to AV IN 1, the color of the AV IN 1 [Y/VIDEO] jack (Green) does not match the color of the video cable (Yellow).

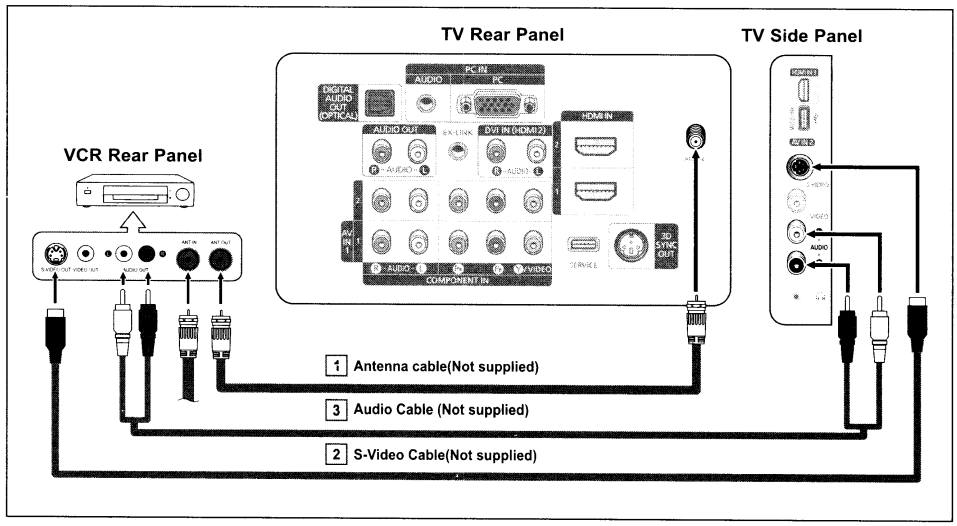
S-Video Connection

Your Samsung TV can be connected to an S-Video jack on a VCR.
(This connection delivers a better picture as compared to a standard VCR.)

1 To begin, follow steps 1–3 in the previous section to connect the antenna or cable to your VCR and your TV.

2 Connect an S-Video Cable between the S-VIDEO OUT jack on the VCR and the AV IN 2 [S-VIDEO] jack on the TV.

3 Connect Audio Cables between the AUDIO OUT jacks on the VCR and the AV IN 2 [R-AUDIO-L] jacks on the TV.



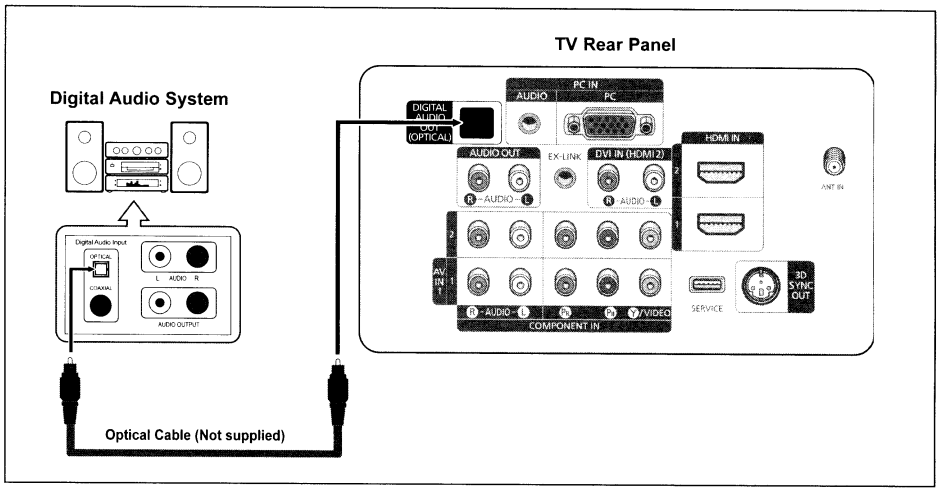
An S-Video may be included with your VCR. (If not, check your local electronics store.)
➢ Each VCR has a different back panel configuration.
➢ When connecting a VCR, match the color of the connection terminal to the cable.

Connecting a Digital Audio System

The rear panel jacks on your TV make it easy to connect a Digital Audio System(Home theater/Receiver) to your TV.

1 Connect an Optical Cable between the DIGITAL AUDIO OUT (OPTICAL) jacks on the TV and the Digital Audio Input (OPTICAL) jacks on the Digital Audio System.

When a Digital Audio System is connected to the DIGITAL AUDIO OUT (OPTICAL) terminal:
Decrease the volume of the TV, and adjust the volume level with the system's volume control.



What is OPTICAL?

- Converts the electric signal into an optical light signal, and transmits it through glass fibers. S/PDIF is a transmission system of digital audio in the form of a light wave that uses a glass conductor.

➢ 5.1CH audio is possible when the TV is connected to an external device supporting 5.1CH.

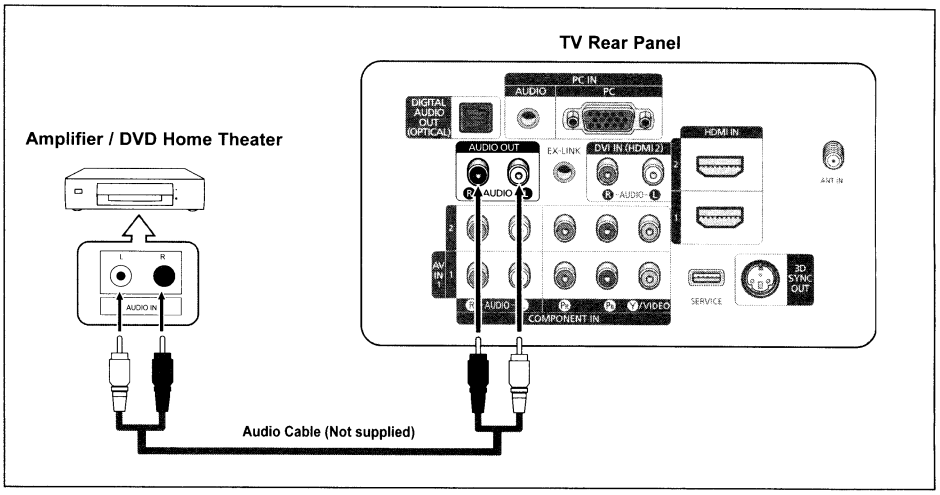
➢ Each external input source device has a different back panel configuration.

➢ When the receiver (home theater) is set to On, you can hear sound output from the TV's Optical jack. When the TV is displaying a DTV(air) signal, the TV will send out 5.1 channel sound to the Home theater receiver. When the source is a digital component such as a DVD and is connected to the TV via HDMI, only 2 channel sound will be heard from the Home Theater receiver.

Connecting an Amplifier / DVD Home Theater

1 Connect Audio Cables between the AUDIO OUT [R-AUDIO-L] on the TV and AUDIO IN [L-AUDIO-R] on the Amplifier / DVD Home Theater.

When an audio amplifier is connected to the AUDIO OUT [R-AUDIO-L] jacks terminals:
Decrease the volume of the TV, and adjust the volume level with the Amplifier's volume control.



➢ Each Amplifier / DVD Home Theater has a different back panel configuration.

➢ When connecting an Amplifier / DVD Home Theater, match the color of the connection terminal to the cable.

Connecting a PC

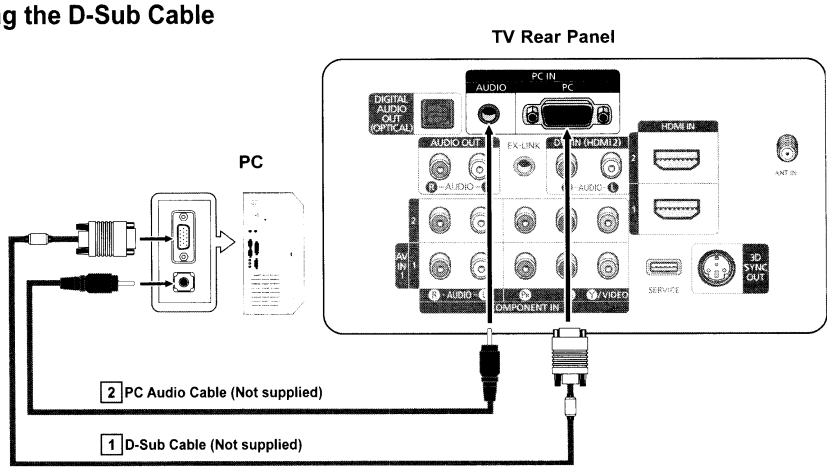
Using the D-Sub Cable

1. Connect a D-Sub Cable between PC IN [PC] jack on the TV and the PC output jack on your computer.
2. Connect a PC Audio Cable between PC IN [AUDIO] jack on the TV and the Audio Out jack of the sound card on your computer.

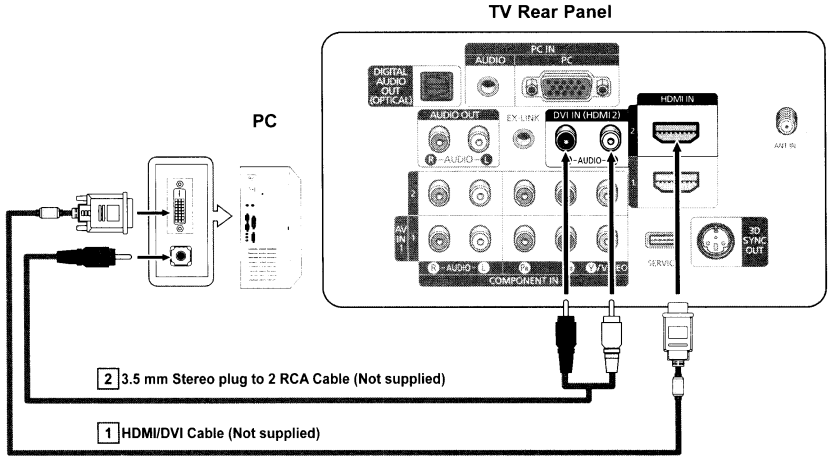
Using the HDMI/DVI Cable

1. Connect a HDMI/DVI cable between the HDMI IN 2 jack on the TV and the PC output jack on your computer.
2. Connect a 3.5mm Stereo/ 2RCA cable between the DVI IN (HDMI 2) [R-AUDIO-L] jack on the TV and the Audio Out jack of the sound card on your computer.

Using the D-Sub Cable



Using the HDMI/DVI Cable



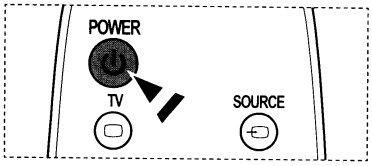
➢ Each PC has a different back panel configuration.
➢ When connecting a PC, match the color of the connection terminal to the cable.
➢ When using an HDMI/DVI cable connection, you must use the HDMI IN 2 terminal.

Operation

Turning the TV On and Off

Press the POWER button on the remote control.
You can also use the POWER button on the TV.

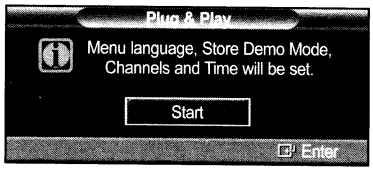
➢ It may take a while before you see a full picture.



Plug & Play Feature

When the TV is initially powered On, basic settings proceed automatically and subsequently:

1 Press the **POWER** button on the remote control.
The message **Menu language, Store Demo Mode, Channels and Time will be set.** is displayed.



2 Press the **ENTER** button to enter the language.
Press the ▲ or ▼ button to select language, then press the **ENTER** button.
The message **Select "Home Use" when installing this TV in your home.** is automatically displayed.

3 Press the ◄ or ► button to select **Store Demo** or **Home Use**, then press the **ENTER** button.

➢ We recommend setting the TV to **Home Use** mode for the best picture in your home environment.

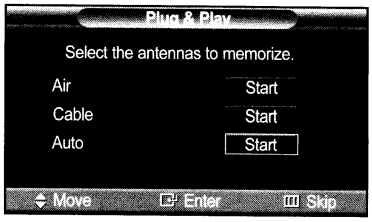
➢ **Store Demo** mode is only intended for use in retail environments.

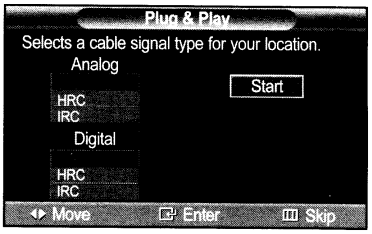
➢ If the unit is accidentally set to Store Demo mode and you want to return to **Home Use** (Standard): Press the Volume button. While the volume OSD is displayed, press and hold the **MENU** button for 5 seconds.

4 Press the ▲ or ▼ button to memorize the channels of the selected connection.
Press the **ENTER** button to select **Start**.

➢ **Air**: **Air** antenna signal.
Cable: **Cable** antenna signal.
Auto: **Air** and **Cable** antenna signals.

➢ In Cable mode, you can select the correct analog signal source among **STD**, **HRC**, and **IRC** by pressing the ◄ or ► button, then press the **ENTER** button. If you have Digital cable, select the signal source for both Analog and Digital. Contact your local cable company to identify the type of cable system that exists in your particular area.



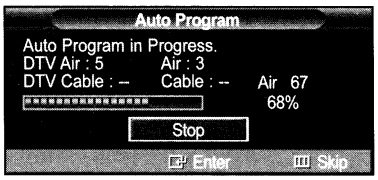


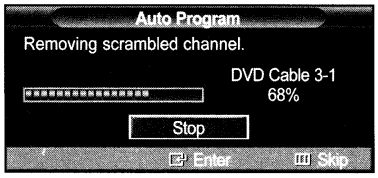
Continued...

5 The TV will begin memorizing all of the available channels.

➢ To stop the search before it has finished, press the **ENTER** button with Stop selected.

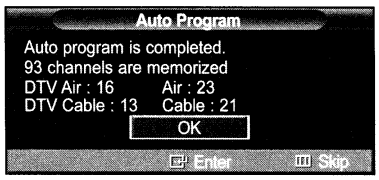
After all the available channels are stored, the TV starts to remove scrambled channels(see page38). Then, the Auto program menu reappears.
Press the **ENTER** button when channel memorization is complete.
Clock Mode menu is automatically displayed.





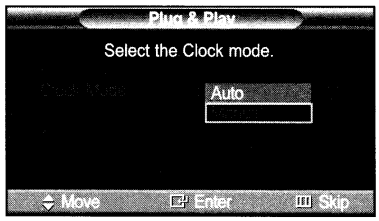
6 Press the **ENTER** button.
Press the ▲ or ▼ button to select **Manual** if you want to set the current time manually, then press the **ENTER** button. **Enter the current date and time.** is displayed.

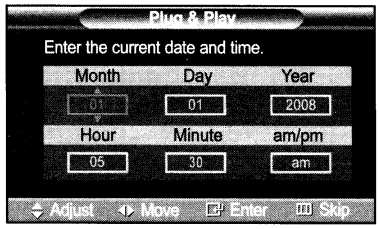
➢ If you select **Auto**, **Set to daylight savings time.** is displayed, then go to step **9**.



7 Press the ◄ or ► button to move to **Month**, **Day**, **Year**, **Hour**, **Minute**, or **am/pm**. Set the date and time you want by pressing the ▲ or ▼ button, then press the **MENU** button.

➢ You can set the **Month**, **Day**, **Year**, **Hour**, and **Minute** directly by pressing the number buttons on the remote control.





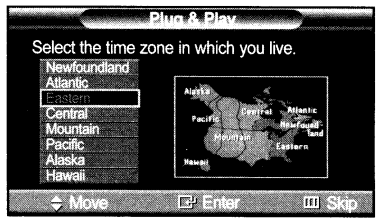
8 The message **Enjoy your watching.** is displayed.
When you have finished, press the **ENTER** button.

➢ Even if the **ENTER** button is not pressed, the message will automatically disappear after several seconds.

Setting the Clock Automatically

9 Press the **ENTER** button.
Press the ▲ or ▼ button to select **On** or **Off**, then press the **ENTER** button.
The **Select the time zone in which you live.** menu is automatically displayed.

10 Press the ▲ or ▼ button to highlight the time zone for your local area (and to move the highlight to the appropriate time zone on the map of the United States).
Press the **ENTER** button.
If clock is not automatically set, see page 48 to set the clock.



11 The message **Enjoy your watching.** is displayed.
When you have finished, press the **ENTER** button.

➢ Even if the **ENTER** button is not pressed, the message will automatically disappear after several seconds.

Continued...

If you want to reset this feature...

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.

2 Press the **ENTER** button to select **Plug & Play**. For further details on setting up options, refer to the pages 16~17.

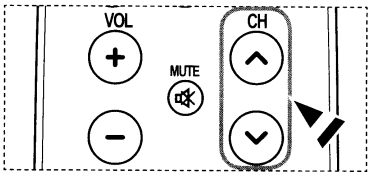
➢ The Plug & Play feature is only available in the TV.

Changing Channels

Using the Channel Buttons

1 Press the **CH** ⌃ or **CH** ⌄ button to change channels.

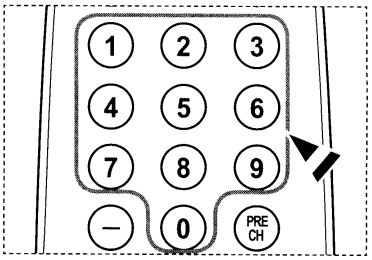
➢ When you press the **CH** ⌃ or **CH** ⌄ button, the TV changes channels in sequence. You will see all the channels that the TV has memorized. (The TV must have memorized at least three channels). You will not see channels that were either erased or not memorized. See pages 20-21 to memorize channels.



Using the Number Buttons

1 Press the number buttons to go directly to a channel. For example, to select channel 27, press **2**, then **7**.
The TV will change channels when you press the second number.

➢ For quick channel change, press the number buttons, then press the **ENTER** button.



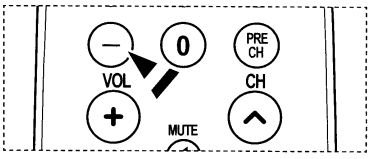
Using the "-" Button

The "⊖" button is used to select stations that broadcast a digital signal.

1 For example, for Channel 7-1, press **7**, then ⊖, then **1**.

➢ HD indicates the TV is receiving a Digital High Definition signal.
SD indicates the TV is receiving a Standard Definition signal.

➢ For quick channel change, press the number buttons, then press the **ENTER** button.

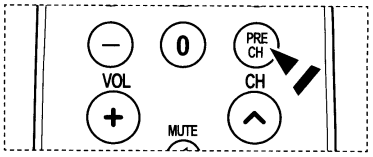


Using the PRE-CH Button to select the Previous Channel

Use the number buttons to quickly tune to any channel.

1 Press the **PRE-CH** button. The TV will switch to the last channel viewed.

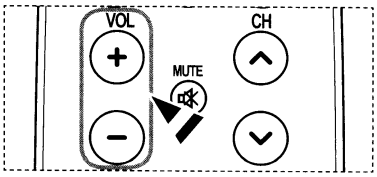
➢ To quickly switch between two channels that are far apart, tune to one channel, then use the number button to select the second channel. Then use the **PRE-CH** button to quickly alternate between them.



Adjusting the Volume

Using the Volume Buttons

1 Press the **VOL** ⊕ or **VOL** ⊖ button to increase or decrease the volume.

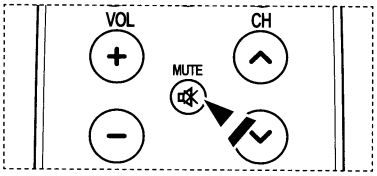


Using the Mute Button

At any time, you can cut off the sound using the **MUTE** button.

1 Press **MUTE** and the sound cuts off.
Mute will displayed on the screen.

2 To turn mute off, press the **MUTE** button again, or simply press the **VOL** ⊕ or **VOL** ⊖ button.



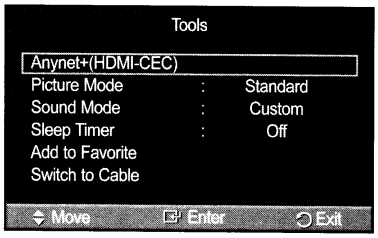
Using the TOOLS Button

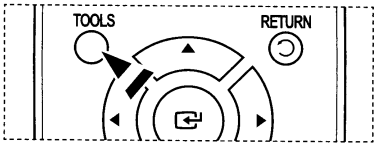
You can use the TOOLS button to select your frequently used functions quickly and easily. The "Tools" menu changes depending on which external input mode you are viewing.

1 Press the **TOOLS** button.
The **Tools** menu will appear.

2 Press the ▲/▼ button to select a menu, then press the **ENTER** button.

3 Press the ▲/▼/◄/►/**ENTER** buttons to display, change, or use the selected items.
For a more detailed description of each function, refer to the corresponding page.



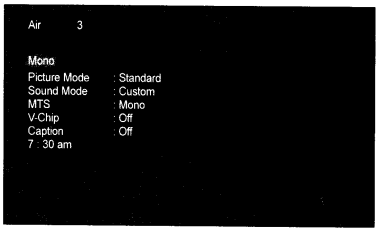


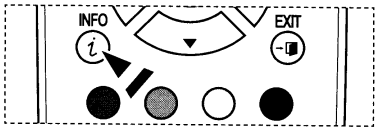
- Anynet+(HDMI-CEC), see page 65
- Picture Mode, see page 23
- Sound Mode, see page 34
- Sleep Timer, see page 49
- Add to Favorite, see page 40
- Switch to Cable, see page 20

Viewing the Display

The display identifies the current channel and the status of certain audio-video settings.

1 Press the **INFO** button on the remote control.
The TV will display the channel, the type of sound, and the status of certain picture and sound settings.

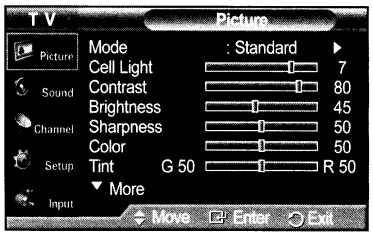




Press the **INFO** button once more or wait approximately 10 seconds and it disappears automatically.

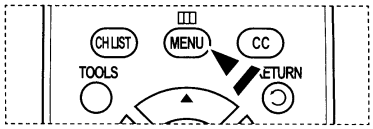
Viewing the Menus

1 With the power on, press the **MENU** button.
The main menu appears on the screen. Its left side has five icons: **Picture**, **Sound**, **Channel**, **Setup**, **Input**.



2 Press the ▲ or ▼ button to select one of the icons.
Then press the **ENTER** button to access the icon's sub-menu.

3 Press the **EXIT** button to exit.



➢ It takes about one minute until the on-screen menu disappears.

Memorizing the Channels

Your TV can memorize and store all of the available channels for both "off-air" (air) and cable channels. After the available channels are memorized, use the CH ⌃ or CH ⌄ button to scan through the channels. This eliminates the need to change channels by entering the channel digits. There are three steps for memorizing channels: selecting a broadcast source, memorizing the channels (automatic) and adding and deleting channels (Channel Lists).

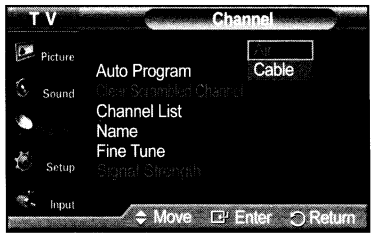
Selecting the Video Signal-source

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e. an Air or a Cable system).

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

2 Press the **ENTER** button to select **Antenna**.
Press the ▲ or ▼ button to select **Air** or **Cable**, then press the **ENTER** button.

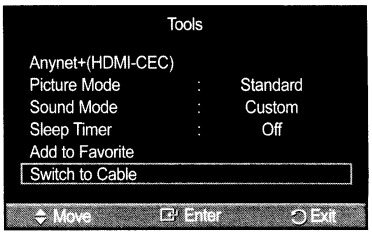
Press the **EXIT** button to exit.



Easy Setting

1 Press the **TOOLS** button on the remote control.

2 Press the ▲ or ▼ button to select **Switch to Cable** or **Switch to Air**, then press the **ENTER** button.



Continued...

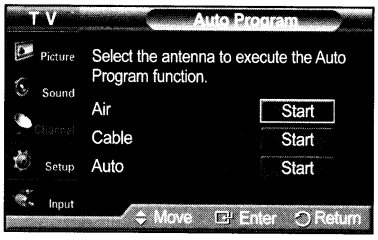
Storing Channels in Memory (Automatic Method)

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **Auto Program**, then press the **ENTER** button.

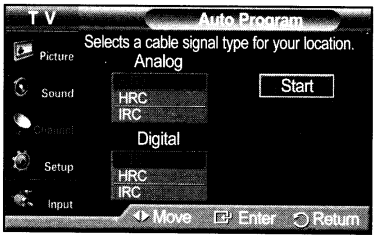
3 Press the ▲ or ▼ button to select the antenna connection, then press the **ENTER** button.

➢ **Air**: **Air** antenna signal.
Cable: **Cable** antenna signal.
Auto: **Air** and **Cable** antenna signals.



4 When selecting the Cable TV system:
Press the **ENTER** button to start the auto program.
Press the ▲ or ▼ to select the correct analog signal cable system source from among **STD**, **HRC**, and **IRC**, then press the **ENTER** button. If you have Digital cable TV, select the cable system signal source for both Analog and Digital.

➢ STD, HRC, and IRC identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area. At this point the signal source has been selected.

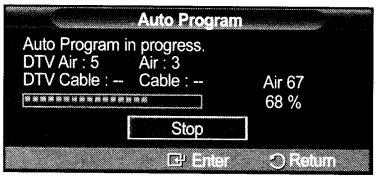


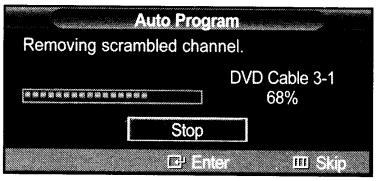
5 The TV begins memorizing all available stations.

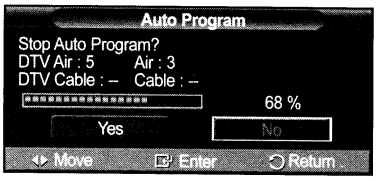
➢ After all the available channels are stored, it starts to remove scrambled channels (see page 38). The Auto program menu then reappears.

➢ If you want to stop Auto Programming, press the **ENTER** button. The **Stop Auto Program?** message will be displayed. Select **Yes** by pressing the ◄ or ► button.

Press the **EXIT** button to exit.



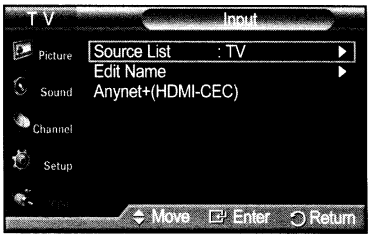




To Select the Source

Use to select TV or other external input sources such as DVD players or Set-top/Cable boxes connected to the TV. Use to select the input source of your choice.

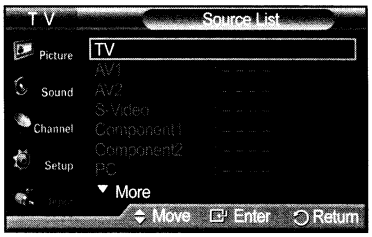
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Input**, then press the **ENTER** button.



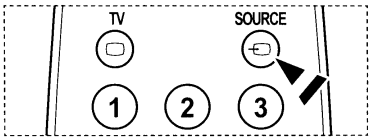
2 Press the **ENTER** button to select **Source List**.
Press the ▲ or ▼ button to select signal source, then press the **ENTER** button.

➢ Available signal sources: **TV**, **AV1**, **AV2**, **S-Video**, **Component1**, **Component2**, **PC**, **HDMI1**, **HDMI2**, **HDMI3**.

➢ You can choose only those external devices that are connected to the TV.



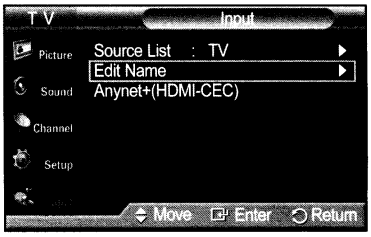
You can also press the **SOURCE** button on the remote control to view an external signal source.



To Edit the Input Source Name

You can name the device connected to the input jacks to make your input source selection easier.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Input**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Edit Name**, then press the **ENTER** button.

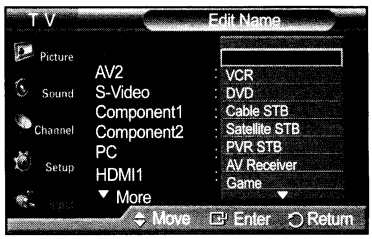


2 Press the ▲ or ▼ button to select **AV1**, **AV2**, **S-Video**, **Component1**, **Component2**, **PC**, **HDMI1**, **HDMI2**, or **HDMI3** input jack, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **VCR**, **DVD**, **Cable STB**, **Satellite STB**, **PVR STB**, **AV Receiver**, **Game**, **Camcorder**, **PC**, **TV**, **IPTV**, **Blu-Ray**, **HD DVD** or **Digital Media Adapter** input source, then press the **ENTER** button.

Press the **EXIT** button to exit.

When a PC with a resolution of 640 x 480@60Hz is connected to the HDMI IN 2 port, you should set the HDMI2 mode to PC in the Edit Name menu.

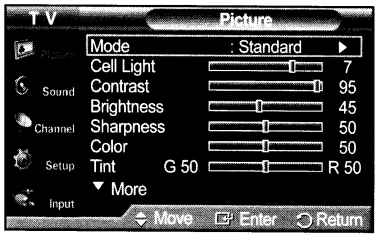


Picture Control

Changing the Picture Standard

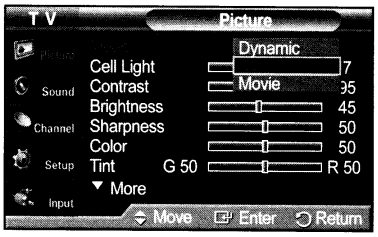
You can select the type of picture which best corresponds to your viewing requirements.

1 Press the **MENU** button to display the menu.
Press the **ENTER** button to select **Picture**.



2 Press the **ENTER** button to select **Mode**.
Press the ▲ or ▼ button to select **Dynamic**, **Standard**, or **Movie.**
Press the **ENTER** button.

- **Dynamic**: Select the picture for high-definition in a bright room.
- **Standard**: Select the picture for the optimum display in a normal environment.
- **Movie**: Select the picture for viewing movies in a dark room.



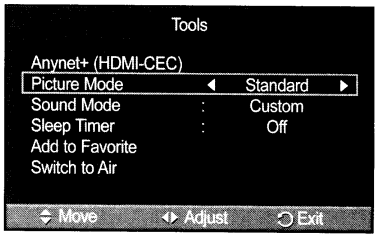
3 Press the **EXIT** button to exit.

Easy Setting

1 Press the **TOOLS** button on the remote control.

2 Press the ▲ or ▼ button to select **Picture Mode**.

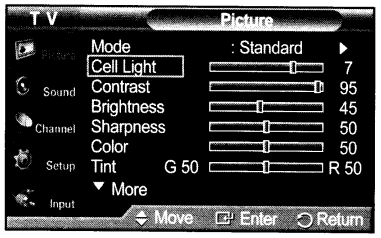
3 Press the ◄ or ► button to select the required option.



Customizing the Picture Settings

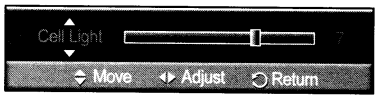
Your television has several setting options that allow you to control the picture quality.

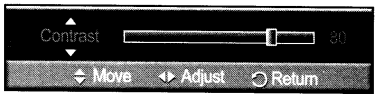
1 To select the desired picture mode, follow the "Changing the Picture Standard" instructions number 1 to 2.



2 Press the ▲ or ▼ button to select **Cell Light**, **Contrast**, **Brightness**, **Sharpness**, **Color**, or **Tint**, then press the **ENTER** button.

3 Press the ◄ or ► button to decrease or increase the value of a particular item.
Press the **ENTER** button.
Press the **EXIT** button to exit.





➢ • When you make changes to **Cell Light**, **Contrast**, **Brightness**, **Sharpness**, **Color**, or **Tint(G/R)** the OSD will be adjusted accordingly.
• When in PC mode, **Tint(G/R)**, **Sharpness** and **Color** are not available.
• Each adjusted setting will be stored separately according to its input mode.

- **Cell Light**: Sets the pixel brightness; 10 being the highest setting.
- **Contrast**: Adjusts the contrast level of the picture.
- **Brightness**: Adjusts the brightness level of the picture.
- **Sharpness**: Adjusts the edge definition of the picture.
- **Color**: Adjusts color saturation of the picture.
- **Tint**: Adjusts the color tint of the picture by compensating the red and green color.

Adjusting the Detailed Settings

Samsung's new TVs allow you to make even more precise picture settings than previous models. See below to adjust detailed picture settings.

Activating Detailed Settings

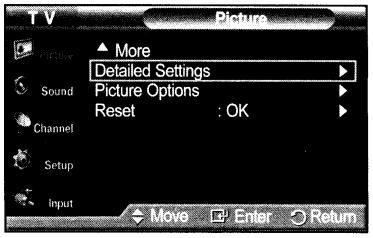
1 Press the **MENU** button to display the menu.
Press the **ENTER** button to select **Picture**.

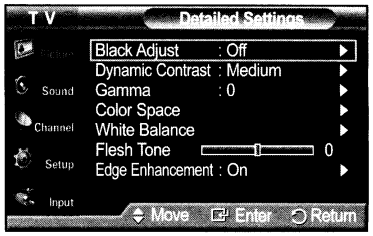
2 Press the **ENTER** button to select **Mode**.
Press the ▲ or ▼ button to select **Standard** or **Movie**, then press the **ENTER** button.

➢ **Detailed Settings** is available in **Standard** or **Movie** mode.

3 Press the ▲ or ▼ button to select **Detailed Settings**, then press the **ENTER** button.

➢ In PC mode, you can only make changes to **Dynamic Contrast**, **Gamma** and **White Balance** from among the **Detailed Settings** items.





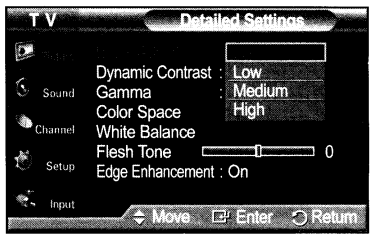
Activating Black adjust

You can select the black level on the screen to adjust the screen depth.

4 Press the ▲ or ▼ button to select **Black adjust**, then press the **ENTER** button.

5 Press the ▲ or ▼ button to select **Off**, **Low**, **Medium** or **High**.
Press the **ENTER** button.

- **Off**: Turns off the black adjustment function.
- **Low**: Sets the black color depth to low.
- **Medium**: Sets the black color depth to medium.
- **High**: Sets the black color depth to high.



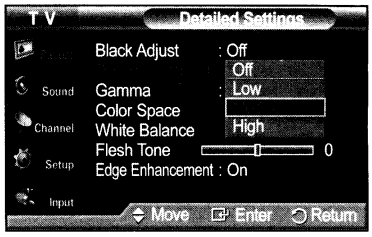
Activating Dynamic Contrast

You can adjust the screen contrast so that the optimal contrast is provided.

6 Press the ▲ or ▼ button to select **Dynamic Contrast**, then press the **ENTER** button.

7 Press the ▲ or ▼ button to select **Off**, **Low**, **Medium** or **High**.
Press the **ENTER** button.

- **Off**: Turns off the dynamic contrast adjustment function.
- **Low**: Sets the dynamic contrast to low.
- **Medium**: Sets the dynamic contrast to medium.
- **High**: Sets the dynamic contrast to high.

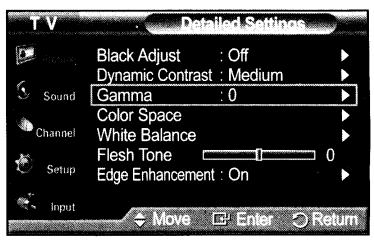


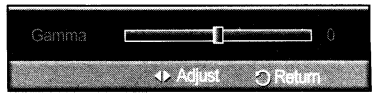
Activating Gamma

You can adjust the Primary Color (Red, Green, Blue) Intensity. (-3 ~ +3)

8 Press the ▲ or ▼ button to select **Gamma**, then press the **ENTER** button.

9 Press the ◄ or ► button to decrease or increase the value.
Press the **ENTER** button.

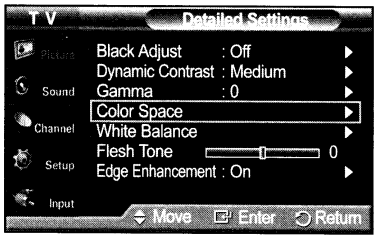




Continued...

Changing the Color Space

Color space is a color matrix composed of red, green and blue colors.
Select your favorite color space to experience the most natural color.

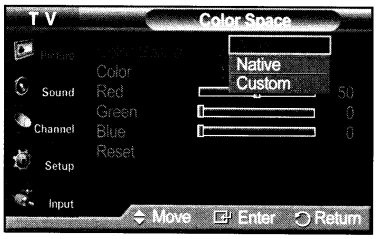


10 Press the ▲ or ▼ button to select **Color Space**, then press the **ENTER** button.

11 Press the **ENTER** button again to select **Color Space**.

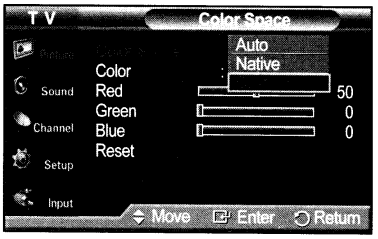
12 Press the ▲ or ▼ button to select **Auto**, **Native** or **Custom**.
Press the **ENTER** button.

- **Auto**: Auto Color Space automatically adjusts to the most natural color tone based on program sources.
- **Native**: Native Color Space offers deep and rich color tone.
- **Custom**: Adjusts the color range to suit your preference. (see "Customizing the Color Space")



Customizing the Color Space

13 Press the ▲ or ▼ button to select **Color**, then press the **ENTER** button.
➢ **Color** is available when **Color Space** is set to **Custom**.

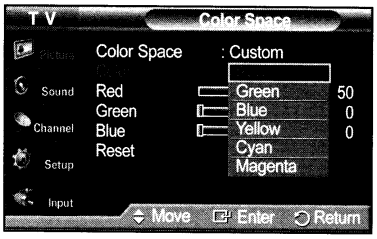


14 Press the ▲ or ▼ button to select **Red**, **Green**, **Blue**, **Yellow**, **Cyan** or **Magenta**. Press the **ENTER** button.

15 Press the ▲ or ▼ button to select Red, Green or Blue to change it. Press the **ENTER** button.

16 Press the ◄ or ► button to decrease or increase the value of a particular item.
Press the **ENTER** button.

➢ In Color, you can adjust the RGB values for the selected color.
➢ To reset the adjusted RGB value, select **Reset**.

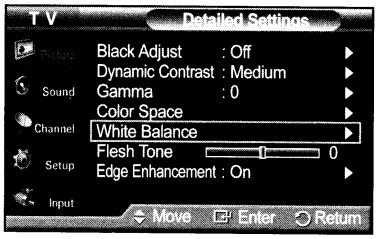


- **Red**: Adjusts the red saturation level of the selected color.
- **Green**: Adjusts the green saturation level of the selected color.
- **Blue**: Adjusts the blue saturation level of the selected color.
- **Reset**: Resets the color space to the default values.

➢ Changing the adjustment value will refresh the adjusted screen.
➢ Settings can be adjusted and stored for each external device you have connected to an input of the TV.

Activating White Balance

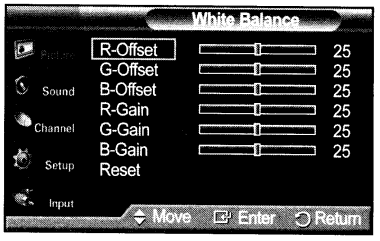
You can adjust the color temperature for more natural picture colors.



17 Press the ▲ or ▼ button to select **White Balance**, then press the **ENTER** button.

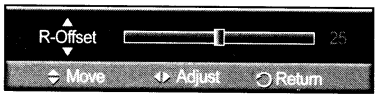
18 Select the required option by pressing the ▲ or ▼ button, then press the **ENTER** button.

19 Press the ◄ or ► button to decrease or increase the value of a particular item.
Press the **ENTER** button.



- **R Offset**: Adjusts the red color darkness.
- **G Offset**: Adjusts the green color darkness.
- **B Offset**: Adjusts the blue color darkness.
- **R Gain**: Adjusts the red color brightness.
- **G Gain**: Adjusts the green color brightness.
- **B Gain**: Adjusts the blue color brightness.
- **Reset**: The previously adjusted white balance will be reset to the factory defaults.

➢ Changing the adjustment value will refresh the adjusted screen.



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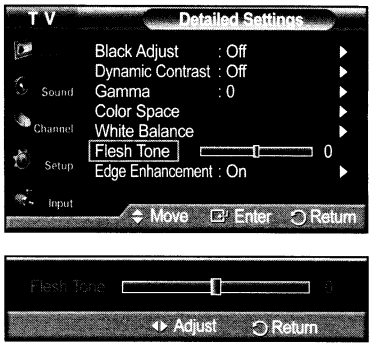
Flesh Tone

You can emphasize the pink flesh tone in the picture.

20 Press the ▲ or ▼ button to select **Flesh Tone**, then press the **ENTER** button.

21 Press the ◄ or ► button to decrease or increase the value.
Press the **ENTER** button.
➢ Changing the adjustment value will refresh the adjusted screen.

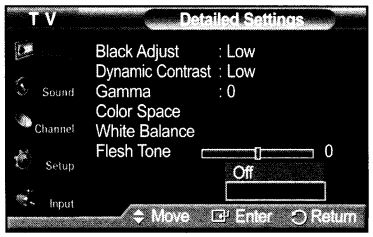


Activating Edge Enhancement

You can emphasize object boundaries in the picture.

22 Press the ▲ or ▼ button to select **Edge Enhancement**, then press the **ENTER** button.

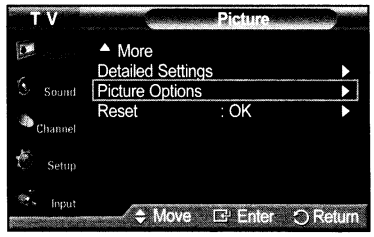
23 Press the ▲ or ▼ button to select **Off** or **On**.
Press the **ENTER** button.



Configuring Picture Options

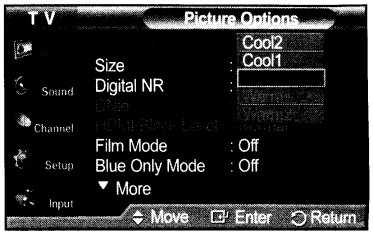
Activating Picture Options

1 Press the **MENU** button to display the menu.
Press the **ENTER** button to select **Picture**.
2 Press the ▲ or ▼ button to select **Picture Options**, then press the **ENTER** button.
3 Press the ▲ or ▼ button to select a particular item. Press the **ENTER** button.
➢ When you are satisfied with your setting, press the **ENTER** button.
➢ In PC mode, you can only make changes to the **Color Tone** and **Size** from among the items in **Picture Options**.



Adjusting the Color Tone

1 Follow the **Activating Picture Options** instructions numbers 1 and 2.
2 Press the ▲ or ▼ button to select **Color Tone**, then press the **ENTER** button.
3 Press the ▲ or ▼ button to select **Cool2**, **Cool1**, **Normal**, **Warm1** or **Warm2**.
Press the **ENTER** button.
➢ **Warm1** or **Warm2** is only activated when the picture mode is Movie.
➢ Settings can be adjusted and stored for each external device you have connected to an input of the TV.



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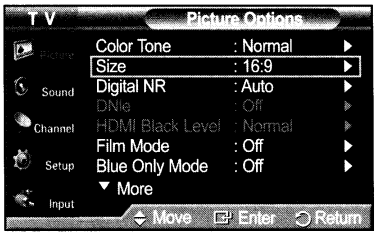
Changing the Screen Size

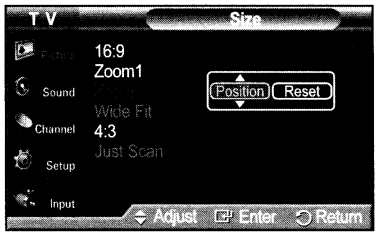
Occasionally, you may want to change the size of the image on your screen. Your TV comes with six screen size options, each designed to work best with specific types of video input. Your cable box or satellite receiver may have its own set of screen sizes as well. In general, though, you should view the TV in 16:9 mode as much as possible.

1 Follow the **Activating Picture Options** instructions numbers 1 and 2.



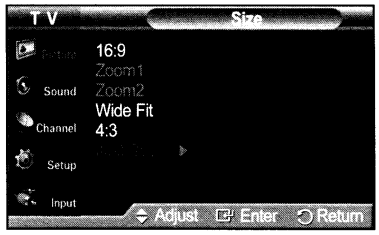
2 Press the ▲ or ▼ button to select **Size**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select the screen format you want.
Press the **ENTER** button.
Press the **EXIT** button to exit.



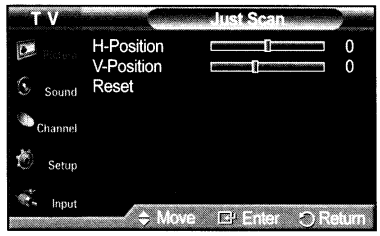
- **16:9** : Sets the picture to 16:9 wide mode.
- **Zoom1** : Magnifies the size of the picture on the screen.
- **Zoom2** : Expands the Zoom1 format picture.
- **Wide Fit** : Enlarges the aspect ratio of the picture to fit the entire screen.
- **4:3** : Sets the picture to 4:3 normal mode.
- **Just Scan** : Use the function to see the full image without any cutoff when HDMI (1080i), Component (1080i) or DTV (1080i) signals are input.

➢ Temporary image retention may occur when viewing a static image on the set for more than two hours.



➢ **After selecting Zoom1, Zoom2 or Wide Fit**:
Press the ◄ or ► button to select **Position**, then press the **ENTER** button.
Press the ▲ or ▼ button to move the picture up and down.
Reset: Press the ◄ or ► button to select **Reset**, then press the **ENTER** button. You can initialize the setting.

➢ **After selecting "Just Scan" in HDMI (1080i) or Component (1080i) mode**:
Press the **ENTER** button. Press the ▲ or ▼ button to select H-Position, V-Position or Reset, the press the **ENTER** button.
Press the ◄ or ► button to move picture up and down, or left and right.

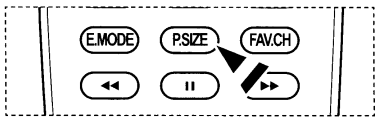


➢ HD (High Definition)
16:9 - 1080i (1920x1080), 720p (1280x720)

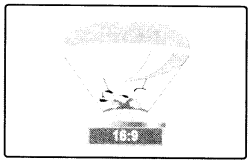
➢ Settings can be adjusted and stored for each external device you have connected to an input of the TV.

Input Source	Picture Size
TV, Video, S-Video, Component (480i, 480p)	16:9, Zoom1, Zoom2, 4:3
DTV(1080i), Component (1080i), HDMI (1080i)	16:9, 4:3, Wide Fit, Just Scan
PC	16:9, 4:3

Alternately, you can press the **P.SIZE** button on the remote control repeatedly to change the picture size.

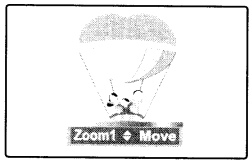


Continued...



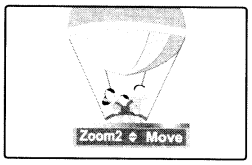
16:9

Sets the picture to 16:9 wide mode.



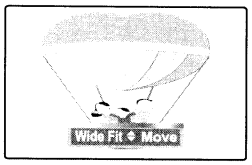
Zoom1

The screen size when Wide screen is vertically enlarged.



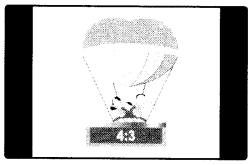
Zoom2

The screen size when the Zoom1 screen is vertically enlarged.



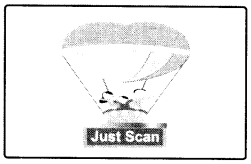
Wide Fit

Enlarges the aspect ratio of the picture to fit the entire screen.



4:3

Sets the picture to 4:3 normal mode.



Just Scan

Use the function to see the full image without any cutoff when HDMI (720p/1080i), Component (1080i) or DTV (1080i) signals are input.

Digital Noise Reduction

If the broadcast signal received by your TV is weak, you can activate the Digital Noise Reduction feature to help reduce any static and ghosting that may appear on the screen.

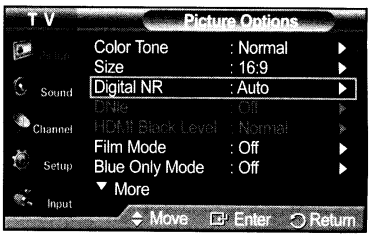
1 Follow the **Activating Picture Options** instructions numbers 1 and 2. (Refer to page 26)

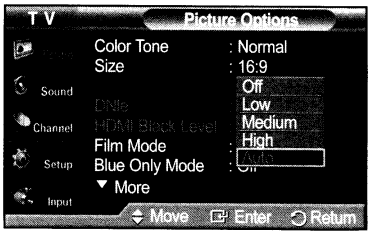
2 Press the ▲ or ▼ button to select **Digital NR**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Off**, **Low**, **Medium**, **High** or **Auto**. Press the **ENTER** button.

- **Off:** Turns the screen noise reduction function off.
- **Low:** Reduces screen noise at a low level.
- **Medium:** Reduces screen noise at a medium level.
- **High:** Reduces screen noise at a high level.
- **Auto:** Automatically recognizes and reduces screen noise.

Press the **EXIT** button to exit.





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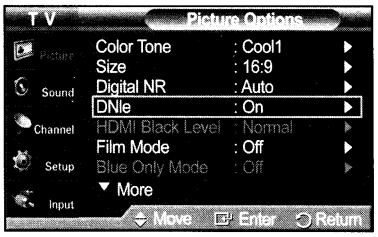
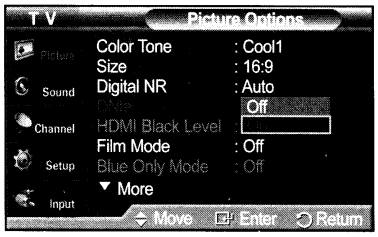
DNIe (Digital Natural Image engine)

This TV includes the DNIe function to provide high visual quality. If you set DNIe to on, you can view the screen with the DNIe feature activated.





1 Follow the **Activating Picture Options** instructions numbers 1 and 2. (Refer to page 26)

2 Press the ▲ or ▼ button to select **DNIe**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **On** or **Off** or then press the **ENTER** button.

- **Off:** Switches off the DNIe mode.
- **On:** Switches on the DNIe mode.

Press the **EXIT** button to exit.

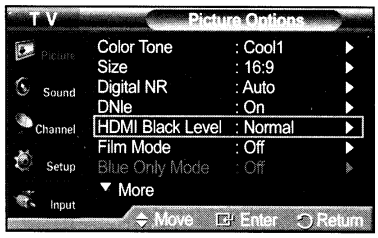
➢ DNIe™ (Digital Natural Image engine) DNIe™
This feature brings you a more detailed image with 3D noise reduction and detail, contrast and white enhancement.

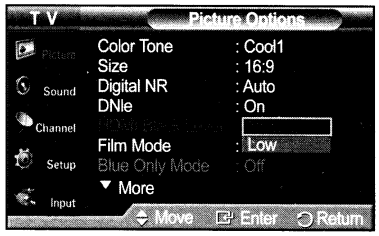
➢ DNIe is only available in Dynamic mode.

➢ This function doesn't work when the Input Source is PC.

Setting the HDMI Black Level

Use this function to adjust the Black Level of the picture while in HDMi mode.





1 Follow the **Activating Picture Options** instructions numbers 1 and 2 (Refer to page 26)

2 Press the ▲ or ▼ button to select **HDMI Black Level**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Normal** or **Low**, then press the **ENTER** button.

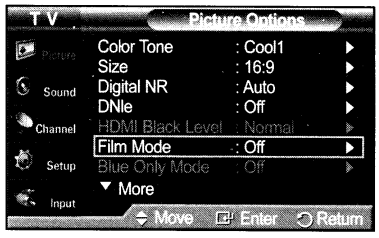
- **Normal:** The screen gets brighter.
- **Low:** The screen gets darker.

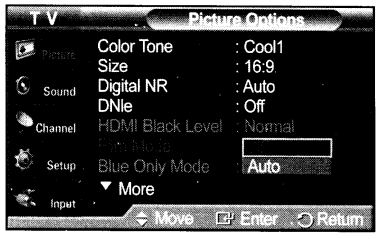
➢ This function is active only when an external device is connected to the TV via HDMI. **HDMI Black Level** function may not be compatible with all external devices.

Press the **EXIT** button to exit.

Setting the Film Mode

The TV can be set to automatically sense and process film signals from all sources and adjust the picture for optimum quality.





1 Follow the **Activating Picture Options** instructions numbers 1 and 2. (Refer to page 26)

2 Press the ▲ or ▼ button to select **Film Mode**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Off** or **Auto**, then press the **ENTER** button.

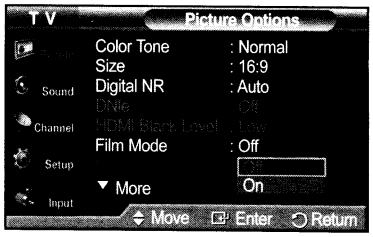
Press the **EXIT** button to exit.

➢ **Film mode** is supported in **TV**, **AV1**, **AV2**, **S-Video**, **Component**(480i /1080i) and **HDMI**(480i /1080i).

Continued...

Setting the Blue Only Mode

This function is for AV device measurement experts. This function displays the blue signal only by removing the red and green signals from the video signal so as to provide a Blue Filter effect that is used to adjust the Color and Tint of video equipment such as DVD players, Home Theaters, etc.
Using this function, you can adjust the Color and Tint to preferred values appropriate to the signal level of each video device using the Red/Green/Blue/Cyan/Magenta/ Yellow Color Bar Patterns, without using an additional Blue Filter.



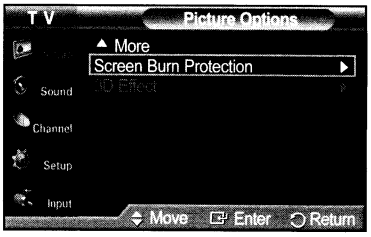
1 Follow the **Activating Picture Options** instructions numbers 1 and 2. (Refer to page 26)

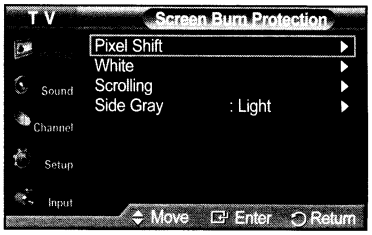
2 Press the ▲ or ▼ button to select **Blue Only Mode**, then press the **ENTER** button.

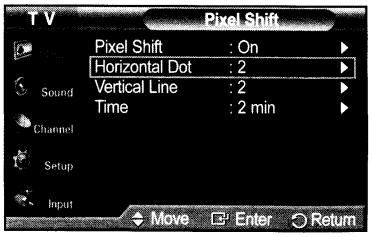
3 Press the ▲ or ▼ button to select **Off** or **On**, then press the **ENTER** button. Press the **EXIT** button to exit.
➢ **Blue Only Mode** is available when the picture mode is set to **Standard** or **Movie**.

Reducing the Effects of Screen Burn

If screen burn has occurred, you can select a white screen or scrolling to help remove screen burn artifacts.







1 Follow the **Activating Picture Options** instructions numbers 1 and 2. (Refer to page 26)

2 Press the ▲ or ▼ button to select **Screen Burn Protection**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Pixel Shift, White**, **Scrolling**, or **Side Gray** then press the **ENTER** button.

Press the **EXIT** button to exit.

- **White**
  This function removes after-images on the screen by changing the color of pixels to white. Use this function when there are remaining after-images or symbols on the screen, especially when you displayed a still image on the screen for a long time.
- **Scrolling**
  This function removes after-images on the screen by moving all the pixels on the PDP according to a pattern. Use this function when there are remaining after-images or symbols on the screen, especially when you displayed a still image on the screen for a long time.
- **Side Gray**
  When you watch TV with the screen ratio of 4:3, the screen is prevented from any damage by adjusting the white balance on both extreme left and right sides.
  To prevent the screen burn from happening, select **Dark** or **Light**.

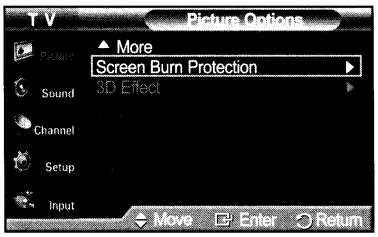
  - **Dark:** When you set the screen ratio to 4:3, it darkens the left and right sides.
  - **Light:** When you set the screen ratio to 4:3, it brightens the left and right sides.

➢ To remove after-images on the screen, use either the **White** or **Scrolling** function. Although both functions remove after-images on the screen, **Scrolling** is more effective.
➢ The after-image removal function has to be executed for a long time (approximately 1 hour) to effectively remove after-images on the screen. If the after-image is not removed after performing the function, repeat the function again.
➢ Press any key on the remote control to cancel this feature.

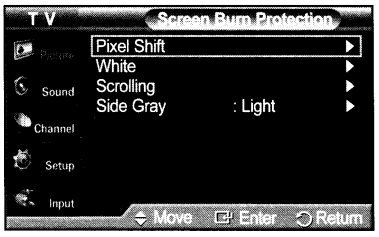
Continued...

Preventing Screen Burn-in

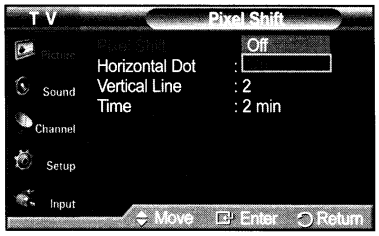
To reduce the possibility of screen burn, this unit is equipped with screen burn prevention technology.
This technology enables you to set picture movement up/down (Vertical Line) and side to side (Horizontal Dot).
The Time setting allows you to program the time between movement of the picture in minutes.



1 Follow the **Activating Picture Options** instructions numbers 1 and 2. (Refer to page 26)

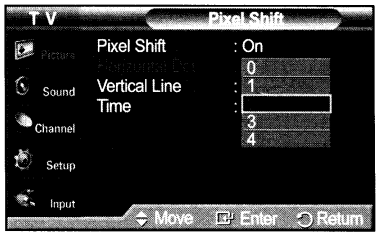


2 Press the ▲ or ▼ button to select **Screen Burn Protection**, then press the **ENTER** button.



3 Press the **ENTER** button to select **Pixel Shift**, then press the **ENTER** button.
Pressing the ▲ or ▼ button will alternate between **On** and **Off**.
You will also see the items **Horizontal Dot**, **Vertical Line** and **Time**.

- **Pixel Shift:** Using this function, you can minutely move pixels on the PDP in horizontal or vertical direction to prevent after-images on the screen.



4 Press the ▲ or ▼ button to select the item you wish to change, then press the **ENTER** button.
Press the ▲ or ▼ button to change the value of the item, then press the **ENTER** button.

- Optimum condition for pixel shift;

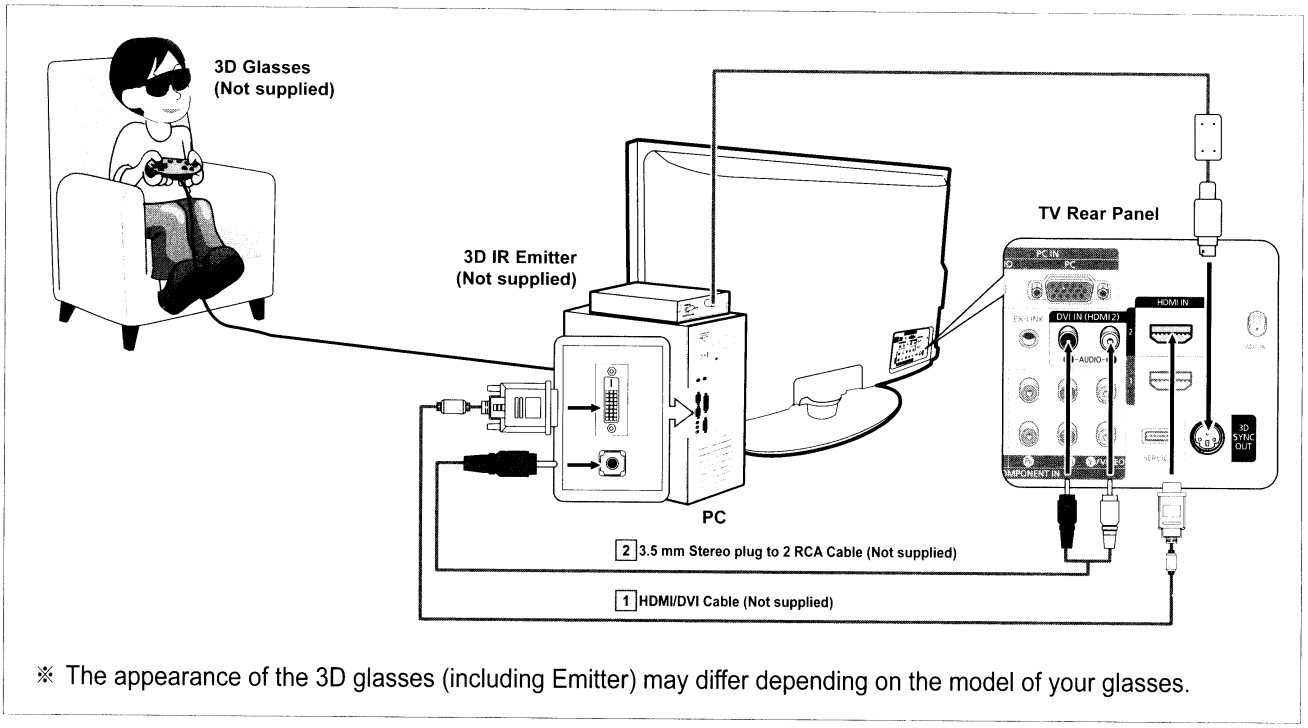
	PC	TV/AV1/AV2/S-Video/Component/HDMI
Horizontal Dot	1	2
Vertical Line	1	2
Time(min)	2	2 min

Press the **EXIT** button to exit.

Using the 3D Function

You can enjoy 3D movies and games on your TV. The 3D effects function enables you to view 3D images using special 3D glasses.

Connections



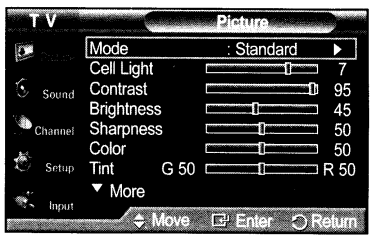
※ The appearance of the 3D glasses (including Emitter) may differ depending on the model of your glasses.

1 Connect a HDMI/DVI cable between the HDMI IN 2 jack on the TV and the PC output jack on your computer.
2 Connect a 3.5mm Stereo/2RCA cable between the DVI IN (HDMI 2) [RAUDIO-L] jack on the TV and the Audio Out jack of the sound card on your computer.
3 Connect the Emitter to the 3D SYNC OUT port on the rear panel of the TV.
4 Turn the TV on and set the source of the TV to HDMI2.

➢ For more information on the 3D glasses (including the Emitter), refer to the user manual of your 3D glasses.
➢ **Adjust the PC resolution**: - PN42A450P1D: 1024 x 768@60Hz
- PN50A450P1D: 1024 x 768@60Hz,1360 x 768@60Hz
➢ The 3D IR Emitter communicates with the 3D glasses.
Therefore, the 3D IR Emitter should be located near the 3D glasses.
➢ It is activated when the HDMI or DVI input signal is RGB, and DVI Sound is supported.
➢ When the power is turned on or off, the mode changes to the default (**Off**) and the **Format** is saved.
➢ The **3D Effect** is turned on or off regardless of the **Picture Mode**.
➢ When **3D Effect** is on, only the **Contrast**, **Brightness**, **3D Effect**, and **Reset picture menus** are activated.
➢ To use the 3D Effect function, a graphics card supporting 3D or 3D software is required.
➢ The 3D glasses and the Emitter must be manufacturer by the same company.
➢ If you play a game or watch TV while wearing the 3D glasses for long periods of time, you may experience eyestrain or a headache.
➢ 3D glasses (including the Emitter) not manufactured by Samsung may not be supported.

Changing the Mode

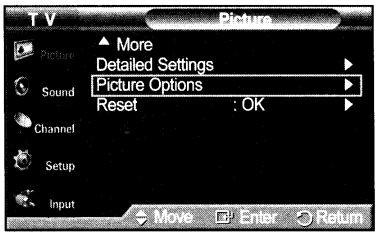
Provides the function to turn on the 3D Effect. You can choose between Mode1 and Mode2. To achieve the 3D effect, the 3D glasses shutter back and forth from the left to right and vice versa (left/right sync).



1 Connect the TV, PC and 3D IR Emitter as shown in the figure.
2 Press the **SOURCE** button to select **HDMI2**.
3 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Picture**, then press the **ENTER** button.

Continued...

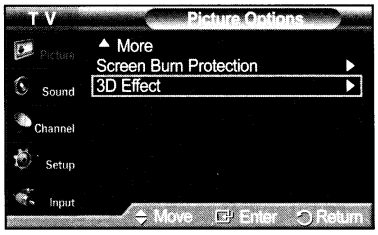
4 Press the ▲ or ▼ button to select **Picture**, **Option** then press the **ENTER** button.
Press the ▲ or ▼ button to select **3D Effect** then press the **ENTER** button.



5 Press the ▲ or ▼ button to select **Mode**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Off**, **Mode1** or **Mode2** then press the **ENTER** button.

- **Off** : Turns the 3D Effect function off.
- **Mode1** : Mode 1 operates with right sync first.
- **Mode2** : Mode 2 operates with left sync first.

➢ If the 3D effect is not working properly, it means the Mode and 3D glasses may not be syncing properly. To put them in sync, switch to the other mode.

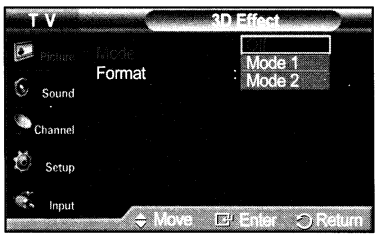


Changing the Format

Select the optimal input format to match your graphic cards or 3D Software.

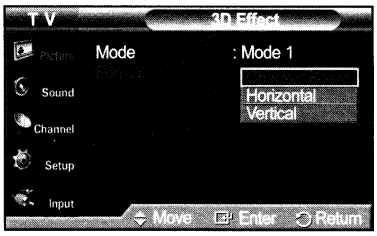
See the descriptions for Steps 1 to 4 above.

6 Press the ▲ or ▼ button to select **Format**, then press the **ENTER** button.



7 Press the ▲ or ▼ button to select **Checker Board**, **Horizontal** or **Vertical** then press the **ENTER** button.

Checker Board	If the output format of your graphic card or 3D software is Checkerboard, select this input format.
Horizontal	If the output format of your graphic card or 3D software is Horizontal interleaved, select this input format.
Vertical	If the output format of your graphic card or 3D software is Vertical interleaved, select this input format.

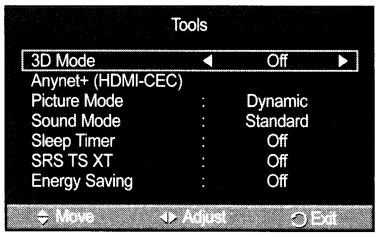


Easy Setting

1 Press the **TOOLS** button on the remote control.

2 Press the ▲ or ▼ button to select **3D Effect**.

3 Press the **ENTER** button to start the 3D Effect.

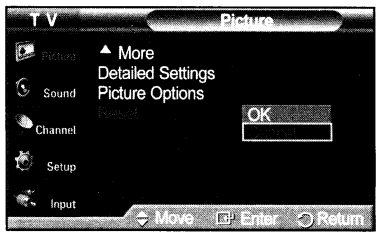


Resetting the Picture Settings to the Factory Defaults

1 To select the desired picture mode, follow the **Activating Picture Options** instructions numbers 1 and 2. (see page 26)

2 Press the ▲ or ▼ button to select **Picture Reset**, then press the **ENTER** button.
Press the ◄ or ► button to select **OK** or **Cancel** then press the **ENTER** button.
Press the **EXIT** button to exit.

➢ Each mode can be reset.



Sound Control

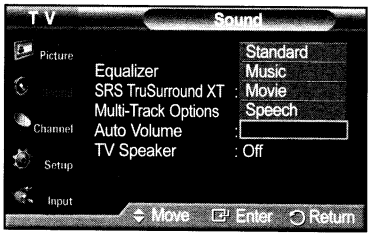
Changing the Sound Standard

You can select the sound mode to best suit the programming you're watching.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Sound**, then press the **ENTER** button.

2 Press the **ENTER** button to select **Mode**. Press the ▲ or ▼ button to select **Standard**, **Music**, **Movie**, **Speech**, or **Custom** sound setting, then press the **ENTER** button.

Press the **EXIT** button to exit.



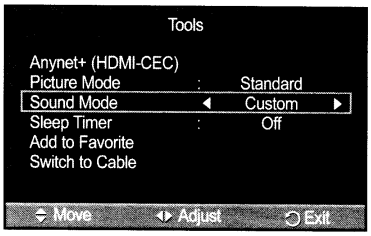
- **Standard** : Selects the normal sound mode.
- **Music** : Emphasizes music over voices.
- **Movie** : Provides the best sound for movies.
- **Speech** : Emphasizes voice over other sounds.
- **Custom** : Recalls your customized sound setting. (See Customizing the Sound)

Easy Setting

1 Press the **TOOLS** button on the remote control.

2 Press the ▲ or ▼ button to select **Sound Mode**.

3 Press the ◄ or ► button to select the required option.

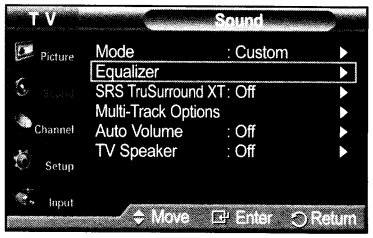


Customizing the Sound

The sound settings can be adjusted to suit your personal preference.

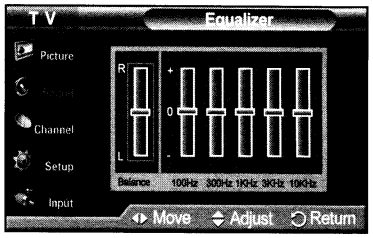
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Sound**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **Equalizer**, then press the **ENTER** button.



3 Press the ◄ or ► button to select a particular frequency to adjust.
Press the ▲ or ▼ button to increase or decrease the level of the particular frequency, then press the **ENTER** button.

Press the **EXIT** button to exit.



- **L/R Sound Balance Adjustment**: To adjust the sound balance of the L/R speakers.
- **Bandwidth Adjustment (100Hz, 300Hz, 1kHz, 2kHz, 3kHz, 10kHz)**: To adjust the level of different bandwidth frequencies.

➢ If you make any changes to the equalizer settings, the sound mode is automatically switched to the **Custom** mode.

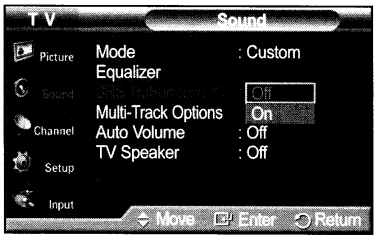
Setting the TruSurround XT

TruSurround XT is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two-speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multi channel formats.

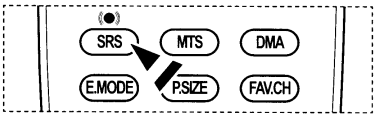
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Sound**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **SRS TruSurround XT**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Off** or **On**, then press the **ENTER** button.
Press the **EXIT** button to exit.



Press the **SRS** button on the remote control to select **On** or **Off**.



TruSurround XT, SRS and (●) Symbol are trademarks of SRS Labs, Inc.
TruSurround XT technology is incorporated under license from SRS Labs, Inc.

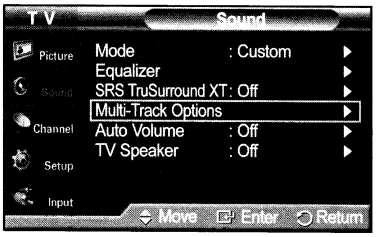
Choosing a Multi-Channel Sound (MTS) Track - Digital

The digital-TV transmission system is capable of simultaneous transmission of many audio tracks (for example, simultaneous translations of the program into foreign languages).

Preferred language

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Sound**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **Multi-Track Options**, then press the **ENTER** button.



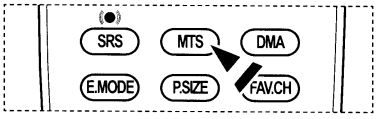
3 Press the **ENTER** button to select **Preferred Language**.
Press the ▲ or ▼ button to choose the language (**English/Spanish/French**) you want, then press the **ENTER** button.

Press the **EXIT** button to exit.

➢ You can only select the language from among the actual languages being broadcast.

➢ **Preferred Language** is available only in Digital TV mode.

Press the **MTS** button on the remote control to listen in a language other than the preferred language.

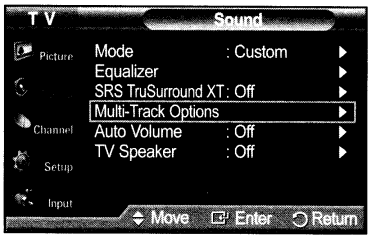


Choosing a Multi-Channel Sound (MTS) Track - Analog

Depending on the particular program being broadcast, you can listen to Mono, Stereo or SAP.

Multi-Track Sound

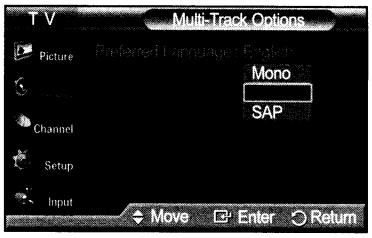
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Sound**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **Multi-Track Options**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Multi-Track Sound**, then press the **ENTER** button.
Press the ▲ or ▼ button to select a setting you want, then press the **ENTER** button.

Press the **EXIT** button to exit.

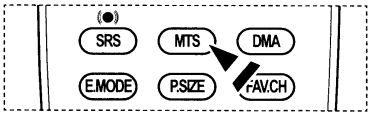


- **Mono** : Choose for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.
- **Stereo** : Choose for channels that are broadcasting in stereo.
- **SAP** : Choose to listen to the Separate Audio Program, which is usually a foreign language translation.

➢ **Multi-Track Sound** is available only in Analog TV mode.

➢ Depending on the particular program being broadcast, you can listen to **Mono**, **Stereo** or **SAP**.

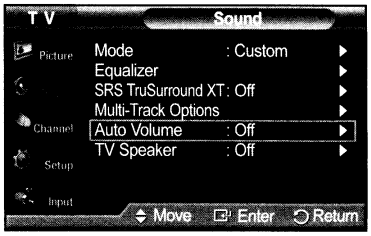
Press the **MTS** buttons on the remote control to select **Mono**, **Stereo**, or **SAP**.



Automatic Volume Control

Reduces the difference in volume level among broadcasters.

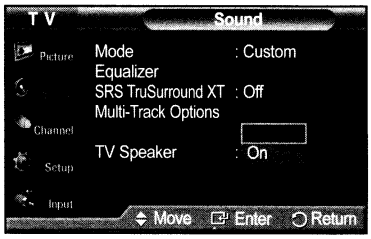
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Sound**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **Auto Volume**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Off** or **On**, then press the **ENTER** button.

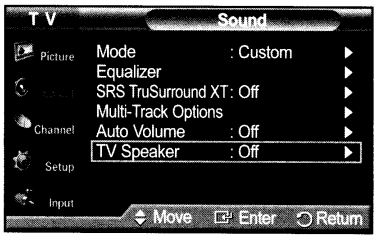
Press the **EXIT** button to exit.



Setting the TV Speakers On/Off

Sound output from the TV speakers is muted.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Sound**, then press the **ENTER** button.

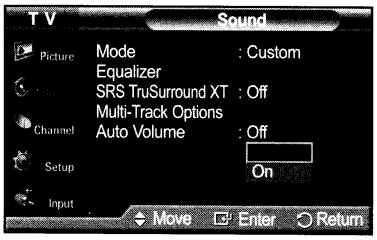


2 Press the ▲ or ▼ button to select **TV Speaker**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Off** or **On**, then press the **ENTER** button.
Press the **EXIT** button to exit.

➢ • When **TV Speaker** is set to **Off**, Sound menus except **Multi-track Options** cannot be adjusted.

• The **VOL** ⊕, **VOL** ⊖ and **MUTE** buttons do not operate when the **TV Speaker** is set to **Off**.



	TV's Internal Speakers			Audio Out (Optical, L/R Out) to Sound System		
	TV	**AV, S-Video**	**Component, PC, HDMI**	**TV**	**AV, S-Video**	**Component, PC, HDMI**
TV Speaker On	Speaker Output	Speaker Output	Speaker Output	Sound Output	Sound Output	Sound Output
TV Speaker Off	Mute	Mute	Mute	Sound Output	Sound Output	Sound Output
Video No Signal	Mute	Mute	Mute	Mute	Mute	Mute

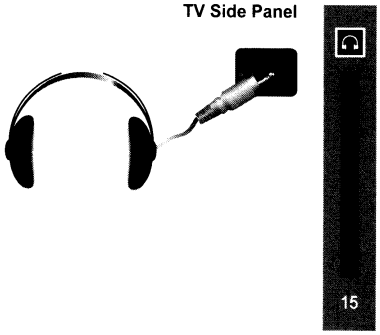
Connecting Headphones (Sold separately)

You can connect a set of headphones to your set if you wish to watch a TV program without disturbing other people in the room.

➢ When you insert the headphone's plug into the headphone jack, you cannot operate **Internal Mute** in **Sound** menu.

➢ Prolonged use of headphones at a high volume may damage your hearing.

➢ You will not hear sound from the speakers when you connect headphones to the TV.



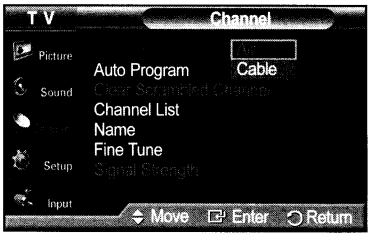
Channel Control

Selecting the Antenna

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

2 Press the **ENTER** button to select **Antenna**.
Press the ▲ or ▼ button to select **Air** or **Cable**, then press the **ENTER** button.

Press the **EXIT** button to exit.



Clearing Scrambled Channels - Digital

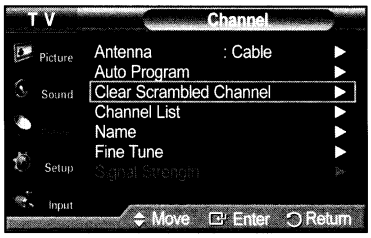
The Clear Scrambled Channel function is used to filter out scrambled channels after Auto Program is completed. This process may take up to 20-30 minutes.

1 Press the **MENU** button.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Clear Scrambled Channel**, then press the **ENTER** button. It searches scrambled channels, which are to be removed from the list.

To stop searching scrambled channels;
Press the **ENTER** button to select **Stop**.
Press the ◄ button to select **Yes**, then press the **ENTER** button.

2 When the scrambled channel searching is completed, press the **ENTER** button.
Press the **EXIT** button to exit.

➢ This function is only available in **Cable** mode.



Adding and Erasing Channels

You can add or delete a channel to display the channels you want.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

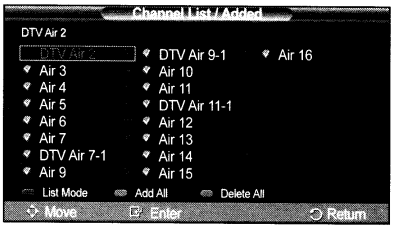
2 Press the ▲ or ▼ button to select **Channel List**, then press the **ENTER** button.

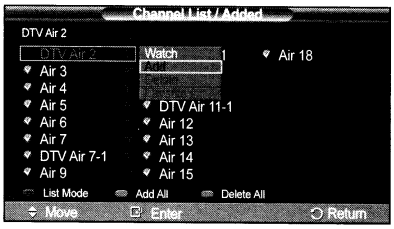
3 Press the ▲ or ▼ button to select **Added**, then press the **ENTER** button.

4 Press the ▲/▼/◄/► buttons to select a channel to add, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Add**, then press the **ENTER** button to add the channel.

Press the **MENU** button to return.

➢ All added channels will be shown on **Added** menu.

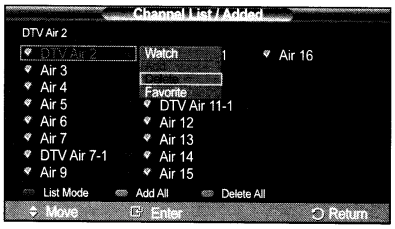




5 Press the ▲/▼/◄/► buttons to select a channel to delete, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Delete**, then press the **ENTER** button to delete the channel.

Press the **EXIT** button to exit.

➢ You can also delete a channel in the All Channels menu in the same manner.

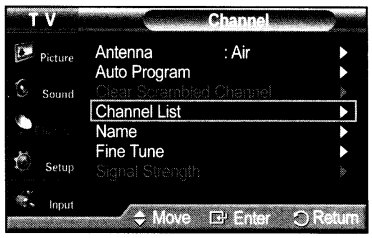


- **Red button**: Press repeatedly to select **All**, **Added**, or **Favorite**.
- **Green button**: Press to add all channels deleted.
- **Yellow button**: Press to delete all channels memorized.

Viewing the Channel Lists

You can display a list of all channels, added channels or your favorite channels.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

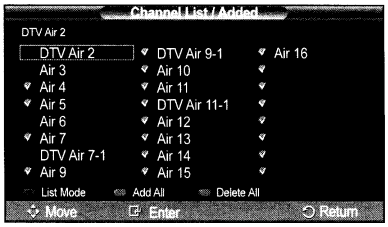


2 Press the ▲ or ▼ button to select **Channel List**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **All**, **Added** or **Favorite**, then press the **ENTER** button.

To toggle between your all channels, add channels, or favorite channels, use the red button on the remote control.

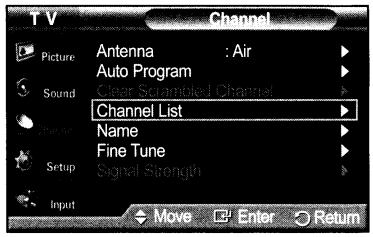
- **Red button**: Press repeatedly to select **All**, **Added**, or **Favorite**.
- **Green button**: Press to add all channels deleted.
- **Yellow button**: Press to delete all channels memorized.



Setting Your Favorite Channels

You can set channels you watch frequently as favorites.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

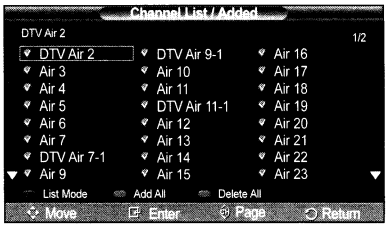


2 Press the ▲ or ▼ button to select **Channel List**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **All** or **Added**, then press the **ENTER** button.

4 Press the ▲/▼/◄/► buttons to select a channel as a favorite channel, then press the **ENTER** button.

Press the **CH** ⌃ and **CH** ⌄ button to display the next channel list page.



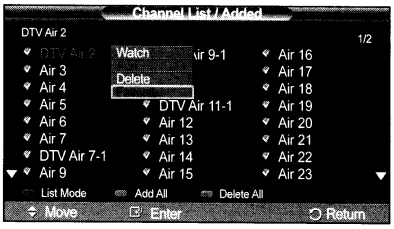
Continued...

5 Press the ▲ or ▼ button to select **Favorite**, then press the **ENTER** button. The "♥" symbol will be highlighted and the channel will be set as a Favorite. To cancel your Favorite channel selection, press the **ENTER** button until the "♥" symbol disappears.

Press the **EXIT** button to exit.

➢ Only memorized channels can be set as favorite channels.

➢ All favorite channels will be shown on the **Favorite** menu.

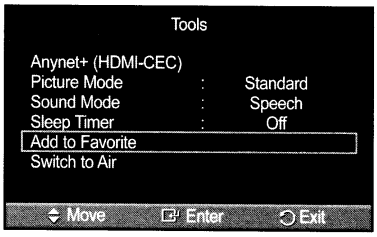


Easy Setting

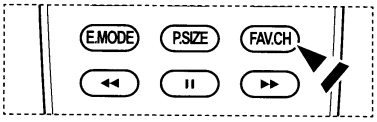
1 Press the **TOOLS** button on the remote control.

2 Press the ▲ or ▼ button to select **Add to Favorite** or **Delete from Favorite**, then press the **ENTER** button.

➢ The current channel is added to or deleted from Favorites.



To select the favorite channels you have set up, press the **FAV.CH** button on the remote control.



Setting the Default Channel List Mode

You can set All, Added, or Favorite to be the Default List that appears when you press the CH LIST button.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **Channel List**, then press the **ENTER** button.

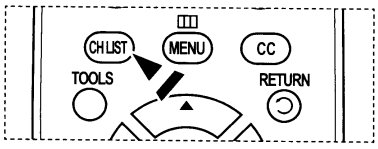
3 Press the ▲ or ▼ button to select **Default List Mode**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **All**, **Added**, or **Favorite**, then press the **ENTER** button.

➢ Select the Channel list you want to appear when you press the **CH LIST** button.

- **All:** Shows All the channels when you press the **CH LIST** button on the remote control.
- **Added:** Shows Added channels when you press **CH LIST** button on the remote control.
- **Favorite:** Shows Favorite channels when you press **CH LIST** button on the remote control.

Press the **EXIT** button to exit.

Press the **CH LIST** button on the remote control to bring up the Channel Lists.



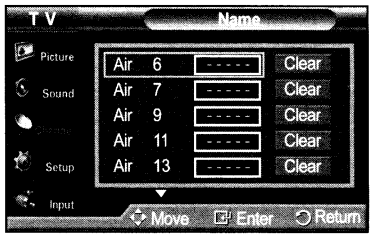
Labeling Channels

Channels can labeled so that their call letters appear whenever the channel is selected.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Name**, then press the **ENTER** button.

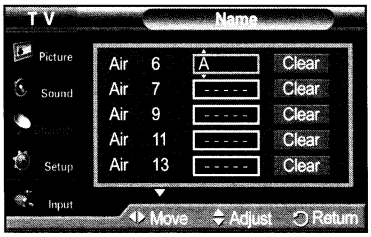
2 Press the ▲ or ▼ button to select the channel to be assigned a new name, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select a letter, a number or a blank (Results in this sequence: A~Z, 0~9, +, −, *, /, blank).
Press the ► button to switch to the next field, which will be selected.
Select a second letter or digit by pressing the ▲ or ▼ button, as above.
Repeat the process to select the last three digits. When you have finished, press the **ENTER** button to assign the new name.
To erase the assigned new name, select **Clear** by pressing the ◄ or ► button, then press the **ENTER** button.



Press the **EXIT** button to exit.

➢ The names of digital broadcasting channels are automatically assigned and thus cannot be assigned by users.

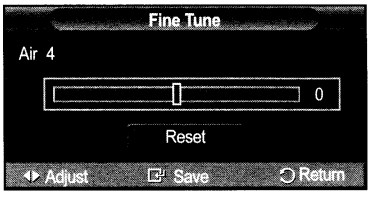


Fine Tuning Analog Channels

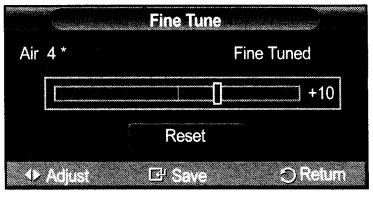
Use fine tuning to manually adjust a particular channel for optimal reception.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

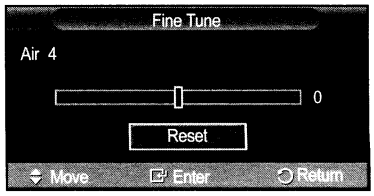
2 Press the ▲ or ▼ button to select **Fine Tune**, then press the **ENTER** button.



3 Press the ◄ or ► button to adjust the fine tuning.



4 To store the fine tuning setting in the TV's memory, press the **ENTER** button.
To reset the fine tuning setting, press the ▼ button to select **Reset**, then press the **ENTER** button.



Press the **EXIT** button to exit.

➢ Only analog TV channels can be fine tuned.

➢ " * " will appear next to the number of fine-tuned channels.

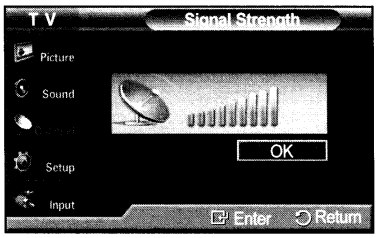
Checking the Digital-Signal Strength

Unlike analog channels, which can vary in reception quality from snowy to clear, digital (HDTV) channels have either perfect reception quality or you will not receive them at all. So, unlike analog channels, you cannot fine tune a digital channel. You can, however, adjust your antenna to improve the reception of available digital channels.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **Signal Strength**, then press the **ENTER** button. If the signal strength meter indicates that the signal is weak, physically adjust your antenna to increase the signal strength.
Continue to adjust the antenna until you find the best position with the strongest signal.

Press the **EXIT** button to exit.



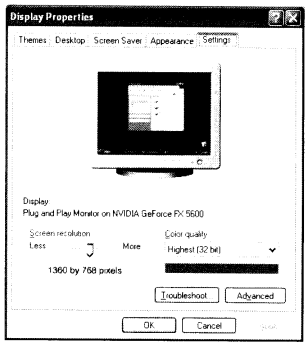
PC Display

Using Your TV as a Computer (PC) Display

Setting Up Your PC Software (Based on Windows XP)

The Windows display-settings for a typical computer are shown below. The actual screens on your PC will probably be different, depending upon your particular version of Windows and your particular video card. However, even if your actual screens look different, the same basic set-up information will apply in almost all cases. (If not, contact your computer or Video Card manufacturer.)

1 First, click on **Control Panel** on the Windows start menu.
2 When the control panel window appears, click on **Appearance and Themes** and a display dialog-box will appear.
3 When the control panel window appears, click on **Display** and a display dialog-box will appear.
4 Navigate to the **Settings** tab on the display dialog-box.
The correct size setting (resolution)
Optimum: PN42A450P1D: 1024x768 pixels
PN50A450P1D: 1360x768 pixels
If a vertical-frequency option exists on your display settings dialog box, the correct value is **60** or **60 Hz**. Otherwise, just click **OK** and exit the dialog box.



Display Modes

If the signal from the system equals the standard signal mode, the screen is adjusted automatically. If the signal from the system doesn't equal the standard signal mode, adjust the mode by referring to your videocard user guide; otherwise there may be no video. For the display modes listed below, the screen image has been optimized during manufacture.

D-Sub Input

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)	PN42A450P1D	PN50A450P1D
IBM	640 x 350	31.469	70.086	25.175	+/-	✔	✔
	720 x 400	31.469	70.087	28.322	-/+	✔	✔
VESA	640 x 480	31.469	59.940	25.175	-/-	✔	✔
	640 x 480	37.861	72.809	31.500	-/-	✔	✔
	640 x 480	37.500	75.000	31.500	-/-	✔	✔
	800 x 600	37.879	60.317	40.000	+/+	✔	✔
	800 x 600	48.077	72.188	50.000	+/+	✔	✔
	800 x 600	46.875	75.000	49.500	+/+	✔	✔
	1024 x 768	48.363	60.004	65.000	-/-	✔	✔
	1024 x 768	56.476	70.069	75.000	-/-	✔	✔
	1024 x 768	60.023	75.029	78.750	+/+	✔	✔
	1360 x 768	47.712	60.015	85.500	+/+		✔

HDMI/DVI Input

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)	PN42A450P1D	PN50A450P1D
VESA	640 x 480	31.469	59.940	25.175	-/-	✔	✔
	800 x 600	37.879	60.317	40.000	+/+	✔	✔
	1024 x 768	48.363	60.004	65.000	-/-	✔	✔
	1360 x 768	47.712	60.015	85.500	+/+		✔

• The interlace mode is not supported.
• The TV operates abnormally if a non-standard video format is selected.
• The table above conforms to IBM/VESA regulations and is based on using the Analog Input.
• " ✔ " mark means that this mode is supported.

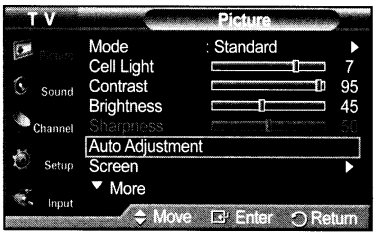
➢ • For the PN42A450P1D, PC text quality is optimum in VESA mode (1024 x 768@60Hz).
• For the PN50A450P1D, PC text quality is optimum in VESA mode (1360 x 768@60Hz).
(Three pixels on left, right, top and bottom will be grayed out at the resolution setting of 1360x768@60Hz. This is not a mechanical problem but a result caused by the pixel difference between the standard resolution and the PDP panel.)
• When this TV is used as a PC display, 32-bit color is supported.
• Depending on the manufacturer, your PC display screen might appear different. (and depending on your particular version of Windows.) Check your PC instruction book for information about connecting your PC to a TV.
• If a vertical and horizontal frequency-select mode exists, select 60Hz (vertical) and 48.4KHz (horizontal).
• In some cases, abnormal signals (such as stripes) might appear on the TV screen when the PC power is turned off (or if the PC is disconnected). If so, press the **SOURCE** button on the remote control or TV panel to enter a VIDEO mode. Also, make sure that the PC is connected.

Setting up the TV with your PC

Use the Auto Adjust function to have the TV set automatically adjust the video signals it receives from the PC. The function also automatically fine-tunes the settings and adjusts the frequency values and positions.

How to Auto Adjust

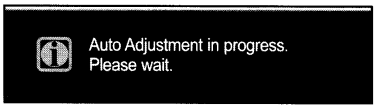
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Picture**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **Auto Adjustment**, then press the **ENTER** button. The message **Auto Adjustment in progress. Please wait.** appears on the screen and the picture adjustments are automatically activated.

Press the **EXIT** button to exit.

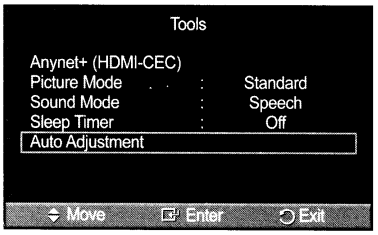
➢ This function does not work in DVI-Digital mode.



Easy Setting

1 Press the **TOOLS** button on the remote control.

2 Press the ▲ or ▼ button to select **Auto Adjustment**, then press the **ENTER** button.

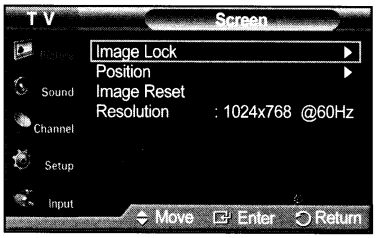


Adjusting the Screen Quality

The purpose of the picture quality adjustment is to remove or reduce picture noise. If the noise is not removed by fine tuning alone, then do the frequency adjustments to the utmost and fine tune again. After the noise has been reduced, re-adjust the picture so that it is aligned on the center of the screen.

➢ Preset: Press the **SOURCE** button to select PC mode.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Picture**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Screen**, then press the **ENTER** button.



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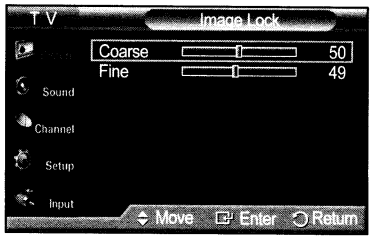
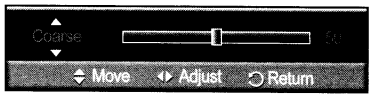
2 Press the **ENTER** button to select **Image Lock**.



3 Press the ▲ or ▼ button to select **Coarse** or **Fine**, then press the **ENTER** button.
Press the ◄ or ► button to adjust the screen quality, then press the **ENTER** button.

Press the **EXIT** button to exit.

➢ Vertical stripes may appear or the picture may be blurry.

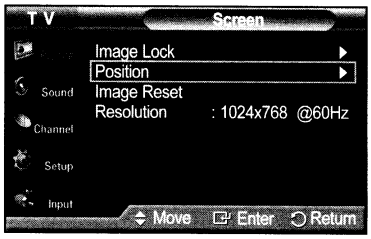


Changing the Screen Position

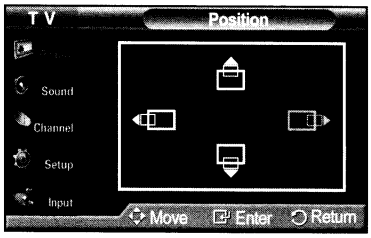
Adjust the PC's screen positioning if it does not fit the TV Screen.

➢ Preset: Press the **SOURCE** button to select PC mode.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Picture**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Screen**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **Position**, then press the **ENTER** button.



3 Press the ▲ or ▼ button to adjust the V-Position.
Press the ◄ or ► button to adjust the H-Position.
Press the **ENTER** button.

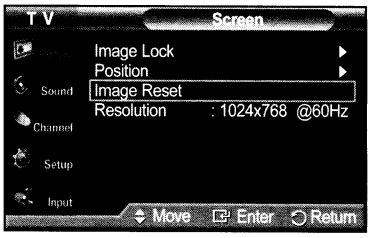
Press the **EXIT** button to exit.

Initializing the Screen Position

You can replace all image settings with the factory default values.

➢ Preset: Press the **SOURCE** button to select PC mode.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Picture**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Screen**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **Image Reset**, then press the **ENTER** button.
The message **Image Reset is completed.** appears on the screen.

Press the **EXIT** button to exit.

➢ The previously adjusted settings will be reset to the factory defaults.

Viewing the Resolution

To Display the current PC resolution, follow step 1 of initializing the screen Position. In the last row is displayed the current PC resolution.

Time Setting

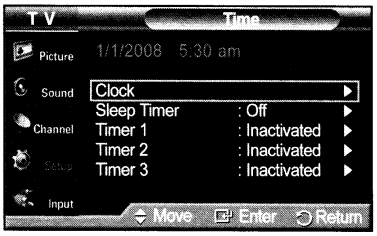
Setting the Time

Setting the clock is necessary in order to use the various timer features of the TV. Also, you can check the time while watching the TV. (Just press the INFO button.)

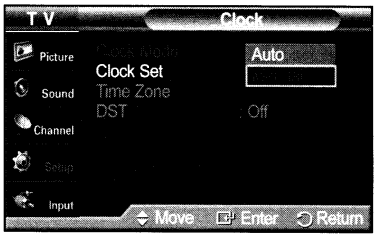
Option 1: Setting the Clock Manually

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Time**, then press the **ENTER** button.

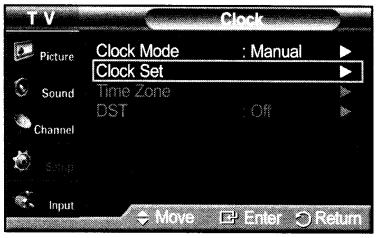
2 Press the **ENTER** button to select **Clock**.



3 Press the **ENTER** button to select **Clock Mode**.
Press the ▲ or ▼ button to select **Manual**, then press the **ENTER** button.



4 Press the ▲ or ▼ button to select **Clock Set**, then press the **ENTER** button.

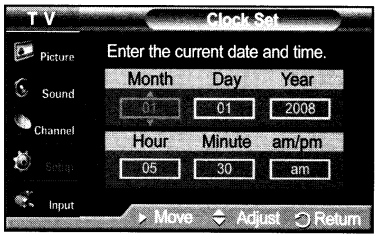


5 Press the ◄ or ► button to move to **Month**, **Day**, **Year**, **Hour**, **Minute**, or **am/pm**. Set the date and time you want by pressing the ▲ or ▼ button, then press the **ENTER** button.

Press the **EXIT** button to exit.

➢ The current time will appear every time you press the **INFO** button.

➢ You can set the **Month**, **Day**, **Year**, **Hour**, and **Minute** directly by pressing the number buttons on the remote control.



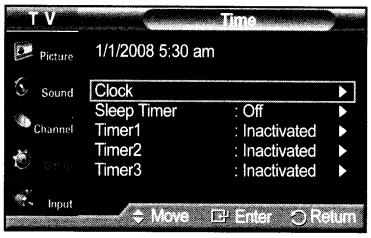
Continued...

Option 2: Setting the Clock Automatically

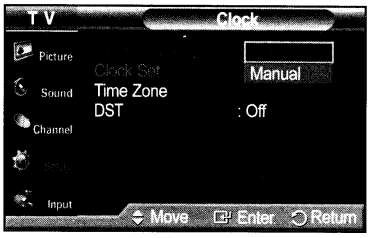
The Clock can be set automatically if you are receiving a digital signal.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Time**, then press the **ENTER** button.

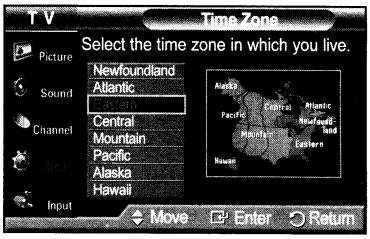
2 Press the **ENTER** button to select **Clock**.



3 Press the **ENTER** button to select **Clock Mode**.
Press the ▲ or ▼ button to select **Auto**, then press the **ENTER** button.



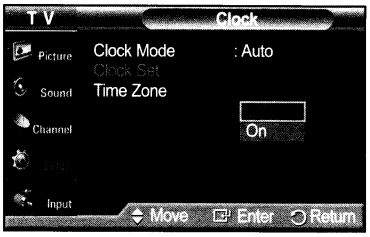
4 Press the ▲ or ▼ button to select **Time Zone**, then press the **ENTER** button.



5 Press the ▲ or ▼ button to highlight the time zone for your local area (and to move the highlight to the appropriate time zone on the map of the United States), then press the **ENTER** button.

6 Press the ▲ or ▼ button to select **DST(Daylight Saving Time)**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Off** or **On**, then press the **ENTER** button.

Press the **EXIT** button to exit.



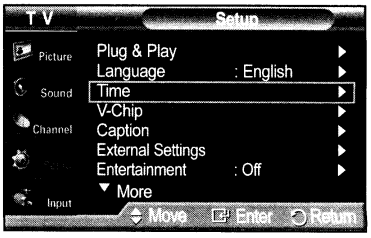
➢ Depending on the broadcast station and signal, the auto time may not be set correctly. If this occurs, set the time manually.

➢ Antenna or Cable must be connected in order to set the time automatically.

Setting the On/Off Timer

Use this feature to set the TV to turn on or off at a desired time. You must set the clock first.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Time**, then press the **ENTER** button.

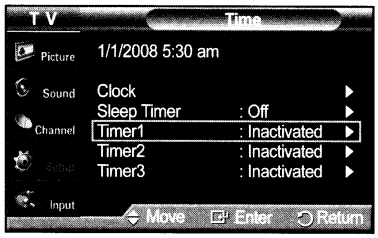


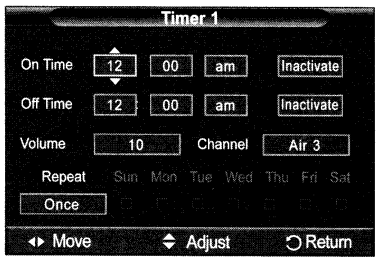
Continued...

2 Three different On/Off Timer Settings can be made.
Press the ▲ or ▼ button to select **Timer1**, **Timer2**,or **Timer3**, then press the **ENTER** button. The timer menu is displayed.
Press the ▲ or ▼ button to adjust hour, then press the ► button to move to the next step. Set other items using the same method as above.

3 Press the ◄ or ► button to select the desired item below.
Press the ▲ or ▼ button to adjust the setting.

Press the **EXIT** button to exit.





- **On Time**: Set the Hour, Minute, am/pm, and Activation/Inactivation. (To activate timer with the setting you've chosen, set to **Activate**.)
- **Off Time**: Set the Hour, Minute, am/pm, and Activation/Inactivation. (To activate timer with the setting you've chosen, set to **Activate**.)
- **Volume**: Set the required volume level.
- **Channel**: When the **On Timer** is activate, you can turn on a specific channel.
- **Repeat**: Select **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun**, or **Manual**.
  ➢ When **Manual** is selected, press the ► button to select the desired day of the week. Press the **ENTER** button over the desired day and the mark (✔) will appear.

➢ You can set the hour, and minute directly by pressing the number buttons on the remote control.

➢ **Auto Power Off**

When you set the timer **On**, the television will eventually turn off, if no controls are operated for 3 hours after the TV was turned on by the timer. This function is only available in timer **On** mode and prevents overheating, which may occur if a TV is on for too long time.

Setting the Sleep Timer

The sleep timer automatically shuts off the TV after a preset time (30, 60, 90, 120, 150 and 180 minutes).

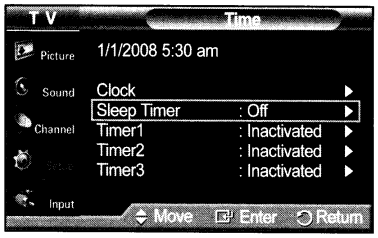
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Time**, then press the **ENTER** button.

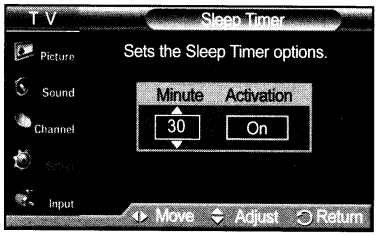
2 Press the ▲ or ▼ button to select **Sleep Timer**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select the minute.
Setting the Timer sets the **Activation** to **On** automatically.

To cancel the set sleep timer:
Press the ► button to select **Activation**.
Press the ▲ or ▼ button to select **Off**, then press the **ENTER** button.

Press the **EXIT** button to exit.





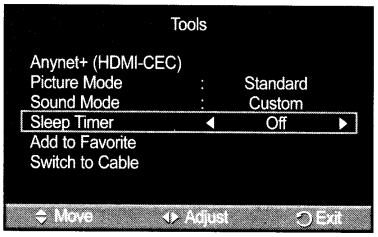
Easy Setting

1 Press the **TOOLS** button on the remote control.

2 Press the ▲ or ▼ button to select **Sleep Timer**, then press the **ENTER** button.

3 Press the ◄ or ► button to select the minute, then press the **ENTER** button.

4 Press the **EXIT** or **TOOLS** button to exit.



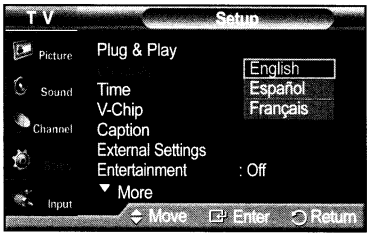
Function Description

Selecting a Menu Language

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Language**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select the appropriate language: **English**, **Español**, or **Français**, then press the **ENTER** button.

Press the **EXIT** button to exit.

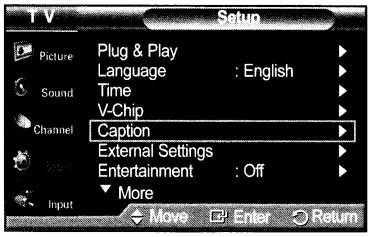


Viewing Closed Captions (On-Screen Text Messages) - Digital

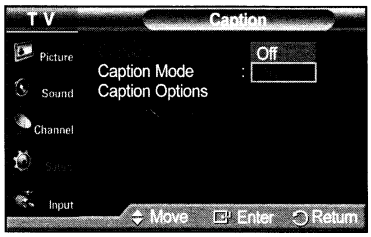
The Digital Captions function operates on digital channels.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **Caption**, then press the **ENTER** button.



3 Press the **ENTER** button to select **Caption**.
Press the ▲ or ▼ button to select **On**, then press the **ENTER** button.

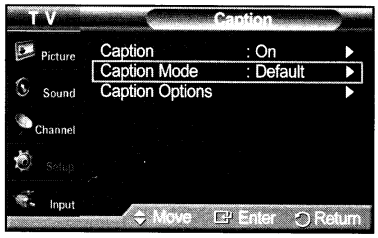


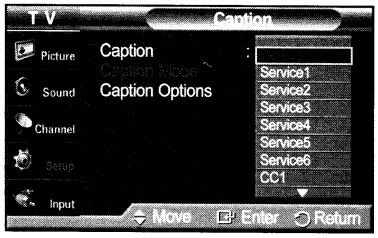
Continued...

4 Press the ▲ or ▼ button to select **Caption Mode**, then press the **ENTER** button. Press the ▲ or ▼ button to select submenu (**Default**, **Service1~Service6**, **CC1~CC4** or **Text1~Text4**) you want, then press the **ENTER** button.

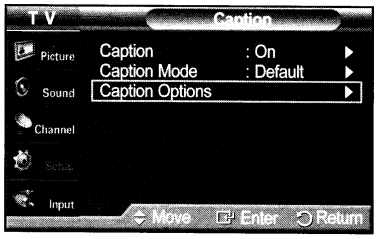
➢ **Service1~6** in digital caption mode may not be available depending on the broadcast.

➢ **Caption Options** are available only when **Default**, **Service1~Service6** can be selected in **Caption Mode**.





5 Press the ▲ or ▼ button to select **Caption Options**, then press the **ENTER** button.



6 Press the ▲ or ▼ button to select **Size**, then press the **ENTER** button. Press the ▲ or ▼ button to select the desired caption option, then press the **ENTER** button.
Press the ▲ or ▼ button to select the desired sub-menu options (see options below), then press the **ENTER** button.

Press the **EXIT** button to exit.

➢ The availability of captions depends on the program being broadcast.

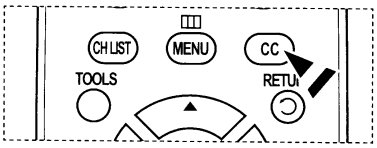
➢ **Default** means to follow the standard set by the broadcaster.

➢ Foreground and Background cannot be set to have the same color.

➢ Foreground Opacity and Background Opacity cannot be both set to Transparent.

- **Size:** This option consists of **Default**, **Small**, **Standard**, and **Large**. The default is **Default**.
- **Font Style:** This option consists of **Default**, **Style0 ~ Style7**. You can change the font you want. The default is **Default**.
- **Foreground Color:** This option consists of **Default**, **White**, **Black**, **Red**, **Green**, **Blue**, **Yellow**, **Magenta**, and **Cyan**. You can change the color of the letter. The default is **Default**.
- **Background Color:** This option consists of **Default**, **White**, **Black**, **Red**, **Green**, **Blue**, **Yellow**, **Magenta**, and **Cyan**. You can change the background color of the caption. The default is **Default**.
- **Foreground Opacity:** This option consists of **Default**, **Transparent**, **Translucent**, **Solid**, and **Flashing**. You can change the opacity of the letter.
- **Background Opacity:** This option consists of **Default**, **Transparent**, **Translucent**, **Solid**, and **Flashing**. You can change the background opacity of the caption.
- **Return to Default:** This option sets each of **Size**, **Font Style**, **Foreground Color**, **Background Color**, **Foreground Opacity**, and **Background Opacity** to its default.

Press the **CC** button on the remote control to turn the Caption **On** or **Off**.



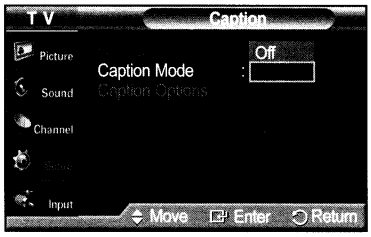
Viewing Closed Captions (On-Screen Text Messages) - Analog

The Analog Caption function operates in either analog TV channel mode or when a signal is supplied from an external device. (Depending on the broadcasting signal, the Analog Caption function may operate on digital channels.)

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.

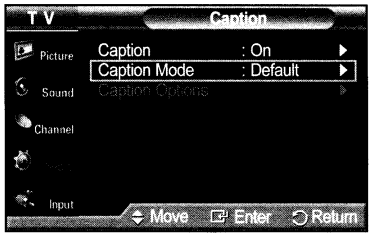
2 Press the ▲ or ▼ button to select **Caption**, then press the **ENTER** button.

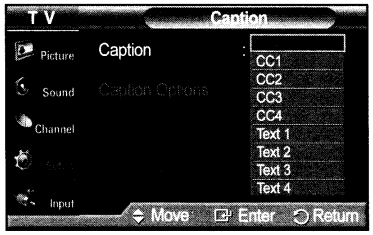
3 Press the **ENTER** button to select **Caption**.
Press the ▲ or ▼ button to select **On**, then press the **ENTER** button.



4 Press the ▲ or ▼ button to select **Caption Mode**, then press the **ENTER** button. Press the ▲ or ▼ button to select submenu (**Default**, **CC1~CC4** or **Text1~Text4**) you want, then press the **ENTER** button.

Press the **EXIT** button to exit.



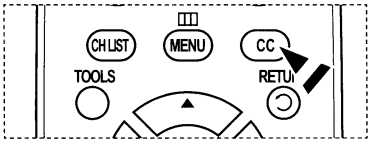


- The default is **Default**.
- **CC1:** The Primary Synchronous Caption Service. These are captions in the primary language that must be in sync with the sound, preferably matched to a specific frame.
- **CC2:** The Special Non-Synchronous Use Captions.This channel carries data that is intended to augment information carried in the program.
- **CC3:** Secondary Synchronous Caption Service.
  Alternate program-related caption data, typically second language captions.
- **CC4:** Special Non-Synchronous Use Captions. Similar to CC2.
- **Text1:** First Text Service. This may be various non-program related data.
- **Text2:** Second Text Service. Additional data, usually not program related.
- **Text3/Text4:** Third and Fourth Text Services. These data channels should be used only if Text1 and Text2 are not sufficient.

➢ • The Caption feature doesn't work in COMPONENT, PC, HDMI(DVI) modes.

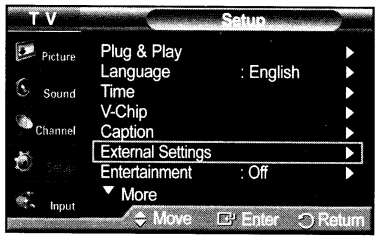
• The availability of captions depends on the program being broadcast.

You can also press the **CC** button on the remote control to select Captions **On** or **Off**.



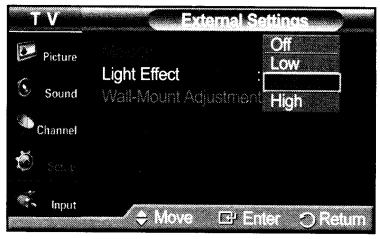
Adjusting the TV On/Off Melody Sound

The TV power on/off melody sound volume can be adjusted.



1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **External Settings**, then press the **ENTER** button.



3 Press the **ENTER** button to select **Melody**.
Press the ▲ or ▼ button to select **Off**, **Low**, **Medium**, or **High**, then press the **ENTER** button.

- **Off**: Turns off the melody function.
- **Low**: Sets the melody volume to low.
- **Medium**: Sets the melody volume to medium.
- **High**: Sets the melody volume to high.

Press the **EXIT** button to exit.

➢ **The Melody does not play**
- When no sound is output from the TV because the **MUTE** button has been pressed,
- When no sound is output from the TV because you have reduced the volume to mimimum by pressing the **VOL** ⊖ button.
- When the TV is turned off by Timer function.

DOLBY DIGITAL

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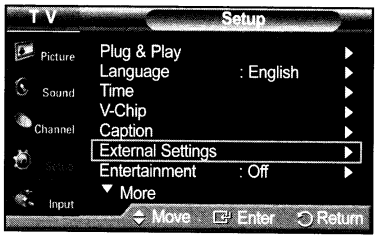
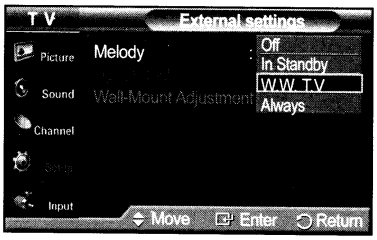
Setting the Light Effect

You can turn the blue LED on the front of TV on/off.



1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **External Settings**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **Light Effect**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Off**, **In Standby**, **When Watching TV**, or **Always**, then press the **ENTER** button.

Press the **EXIT** button to exit.

- **Off:** The LED is always off.
- **In Standby:** The LED lights while in Standby mode and it turns off when your TV is turned on.
- **When Watching TV:** The LED lights when watching TV and it turns off when your TV is turned off.
- **Always:** The LED is always lit.

➢ Set the Light Effect to Off to reduce the power consumption.

Setting the Entertainment mode

The Entertainment mode enables you to select the optimal display and sound for sports, cinema and games.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **Entertainment**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Off**, **Sports**, **Cinema** or **Game**, then press the **ENTER** button.

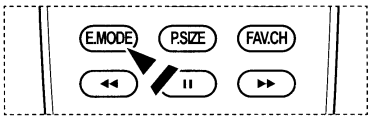
- **Off:** Switches the **Entertainment** function off.
- **Sports**: Provides the optimal picture and sound quality for sports.
- **Cinema**: Provides the optimal picture and sound quality for movie watching You can experience a richer picture and enhanced sound.
- **Game**: Provides the optimal picture and sound quality for games. This mode accelerates the playing speed when using an external game console connected to the TV.

Press the **EXIT** button to exit.

➢ If you set any of the three **Entertainment** modes to On, the settings will be locked and can not be adjusted. If you want to make Picture and Sound mode adjustments, the Entertainment mode must be turned off.

➢ The **Entertainment** settings are saved for each input source.

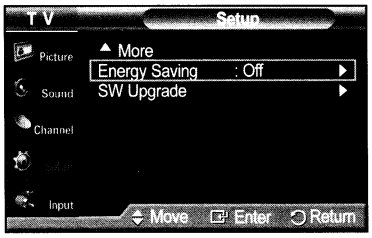
You can press the **E.MODE** button on the remote control repeatedly to change the **Entertainment** setting.



Using the Energy Saving Feature

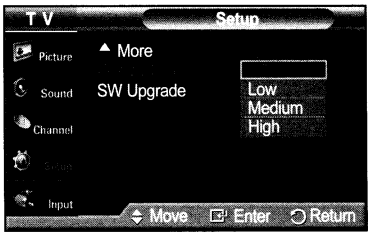
This feature adjusts the power consumption of the unit in order to save energy.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **Energy Saving**, then press the **ENTER** button.
Press the ▲ or ▼ button to select **Off**, **Low**, **Medium**, or **High**, then press the **ENTER** button.

Press the **EXIT** button to exit.

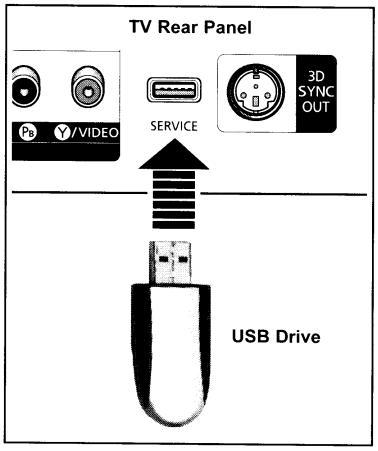


- **Off:** Switches off the Energy Saving mode.
- **Low:** Operates in standard mode.
- **Medium:** Enters medium power saving mode.
- **High:** Enters maximum power saving mode.

Upgrading the Software

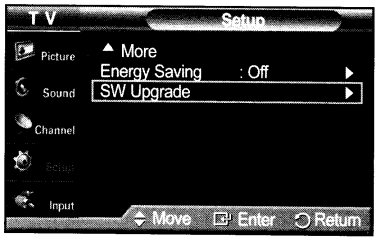
Samsung may offer upgrades for your TV's firmware in the future. Please contact the Samsung call center at 1-800-SAMSUNG to receive information about downloading upgrades and using a USB drive. Upgrades will be possible by connecting a USB drive to the USB port.

1 Insert a USB drive containing the firmware upgrade into the USB Upgrade Port on the rear of the TV.

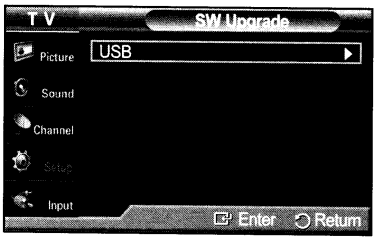


2 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.

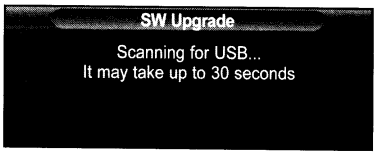
3 Press the ▲ or ▼ button to select **SW Upgrade**, then press the **ENTER** button.



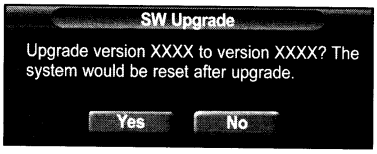
4 Press the ▲ or ▼ button to select **USB**, then press the **ENTER** button.
The message **Scanning for USB... It may take up to 30 seconds** is displayed.



5 If the firmware on the USB is properly recognized, the message **Upgrade version xxxx to version xxxx The system would be reset after upgrade.** is displayed.
Press the ◄ or ► button to select **Yes**, then press the **ENTER** button.
The upgrade starts.



Please be careful to not disconnect the power or remove the USB drive while upgrades are being applied.
The TV will shut off and turn on automatically after completing the firmware upgrade.
Please check the firmware version after the upgrades are complete.
When software is upgraded, video and audio settings you have made will return to their default (factory) settings. We recommend you write down your settings so that you can easily reset them after the upgrade.



Using the V-Chip

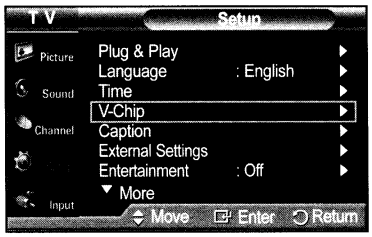
U.S.A Only
This product is covered by the following U.S. patents : US4,930,158 US4,930,160

The V-Chip feature automatically locks out programs that are deemed inappropriate for children. The user must enter a PIN (personal ID number) before any of the V-Chip restrictions are set up or changed.

➢ **V-Chip** function is not available in **HDMI**, **Component** or **PC** mode.

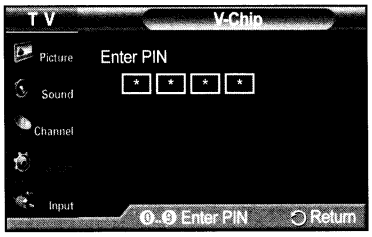
Setting Up Your Personal ID Number (PIN)

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.



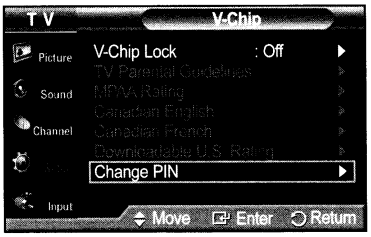
2 Press the ▲ or ▼ button to select **V-Chip**, then press the **ENTER** button.
The message **Enter PIN** will appear. Enter your 4 digit PIN number.

➢ The default PIN number of a new TV set is **0-0-0-0**.

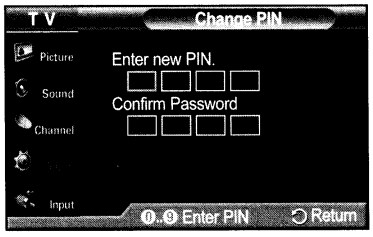


3 The **V-Chip** screen will appear.
Press the ▲ or ▼ button to select **Change PIN**, then press the **ENTER** button.
The Change PIN screen will appear. Choose any 4 digits for your PIN and enter them. Re-enter the same 4 digits.
When the message **PIN is changed successfully.** is displayed, your PIN has been memorized.

Press the **EXIT** button to exit.



➢ If you forget the PIN, press the remote-control buttons in the following sequence, which resets the pin to 0-0-0-0 : Power Off. → MUTE → 8 → 2 → 4 → Power On.

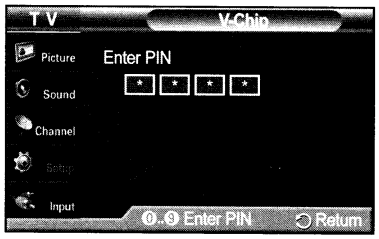


Continued...

How to Enable/Disable the V-Chip

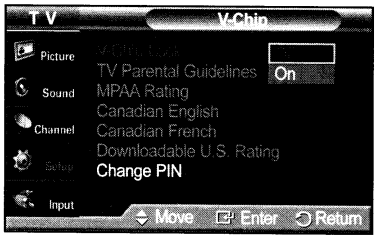
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **V-Chip**, then press the **ENTER** button.
The message **Enter PIN** will appear. Enter your 4 digit PIN number.



3 The **V-Chip** screen will appear.
To enable the V-Chip feature, press the **ENTER** button so that the **V-Chip Lock** field is **On**. (Pressing the ▲ or ▼ button will alternate between **On** and **Off**.)
Press the **ENTER** button.

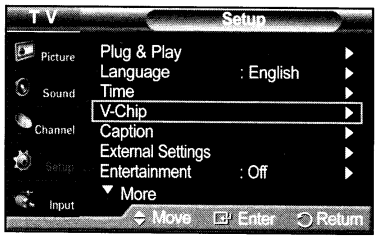
Press the **EXIT** button to exit.



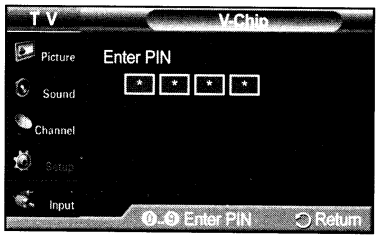
How to Set up Restrictions Using "TV Parental Guidelines"

First, set up a personal identification number (PIN), and enable the V-Chip. (See previous section.) Parental restrictions can be set up using either of two methods: The TV guidelines or the MPAA rating.

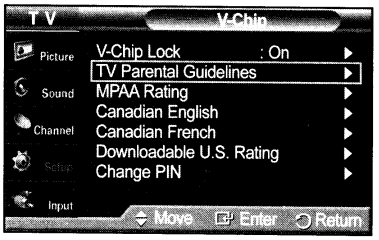
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **V-Chip**, then press the **ENTER** button.
The message **Enter PIN** will appear. Enter your 4 digit PIN number.



3 The **V-Chip** screen will appear. Press the ▲ or ▼ button to select **TV Parental Guidelines**, then press the **ENTER** button.



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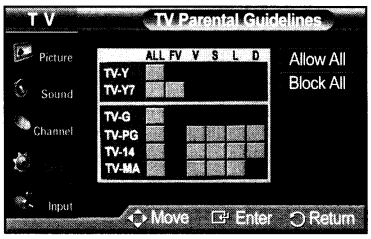
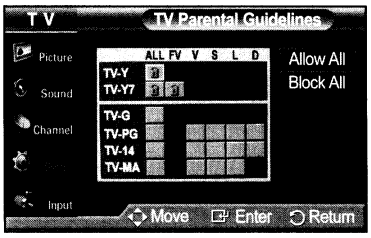
4 The **TV Parental Guidelines** screen will appear.
Press the ▲ or ▼ button to select one of the six aged based categories:





- **TV-Y:** All children. The themes and elements in this program are specifically designed for a very young audience, including children from ages two to six.
- **TV-Y7:** Directed to older children. The themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of seven.
- **TV-G:** General audience. It contains little or no violence, no strong language, and little or no sexual dialog or situations.
- **TV-PG:** Parental guidance suggested. This program may contain infrequent coarse language, limited violence, some suggestive sexual dialog and situations.
- **TV-14:** Parents strongly cautioned. This program may contain sophisticated themes, sexual content, strong language and more intense violence.
- **TV-MA:** Mature audiences only. This program may contain mature themes, profane language, graphic violence and explicit sexual content.

5 At this point, one of the TV-Ratings is selected.
Press the **ENTER** button. Depending on your existing setup, the " 🔒 " symbol will be selected. (Blank = Unblocked, 🔒 = Blocked) While " 🔒 " is selected, press the **ENTER** button to block or unblock the category.
To select a different TV-Rating, press the ▲ or ▼ button and then repeat the process.

➢ **Allow All:** Press to unlock all TV ratings.
Block All: Press to lock all TV ratings.

➢ The TV-Y, TV-Y7, TV-G, TV-PG, TV-14 and TV-MA have additional options. See the next step to change any of the following sub-ratings:

- **ALL**: Lock all TV ratings.
- **FV**: Fantasy violence.
- **D**: Sexually suggestive dialog.
- **L**: Adult language.
- **S**: Sexual situation.
- **V**: Violence.

➢ The V-Chip will automatically block certain categories that are "more restrictive". For example, if you block **TV-Y** category, then TV-Y7 will automatically be blocked. Similarly, if you block the TV-G category, then all the categories in the "young adult" group will be blocked (TV-G, TV-PG, TV-14, and TV-MA). The subratings (D, L, S, V) work together similarly. (See next section.)

6 How to set the FV, D, L, S and V sub-ratings. First, select one of these TV-Ratings: TV-Y, TV-Y7, TV-G, TV-PG, TV-14, or TV-MA (See Step **4**), and press the **ENTER** button. The " 🔒 " symbol will be displayed for each sub-rating. While " 🔒 " is selected, press the ► button to go to a sub rating. Press the **ENTER** to block the sub rating. To select a different TV-Rating, press the ▲ or ▼ button and then repeat the process.

7 Press the **EXIT** button to clear all the screens. (Or proceed to the next section, and set up additional restrictions based on the MPAA codes.)

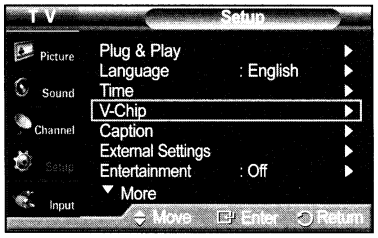
➢ These categories consist of two separate groups: TV-Y and TV-Y7 (young children through age 7), and TV-G through TV-MA (everybody else). The restrictions for these two groups work independently: If a household includes very young children as well as young adults, the TV guidelines must be set up separately for each age group.

Continued...

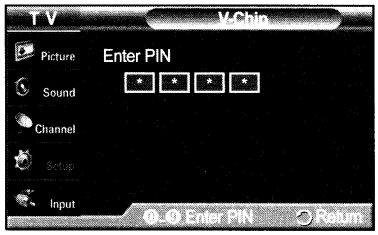
How to Set up Restrictions Using "MPAA Ratings" (G, PG, PG-13, R, NC-17, X, NR)

The MPAA rating system uses the Motion Picture Association of America (MPAA) system, and its main application is for movies. When the V-Chip lock is on, the TV will automatically block any programs that are coded with objectionable ratings (either MPAA or TV-Ratings).

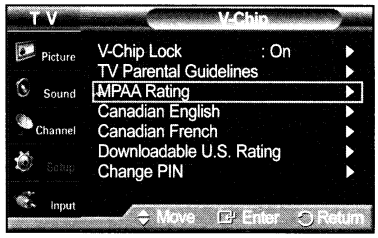
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **V-Chip**, then press the **ENTER** button.
The message **Enter PIN** will appear. Enter your 4 digit PIN number.



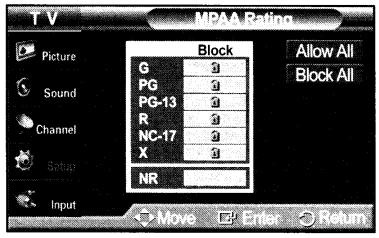
3 The **V-Chip** screen will appear. Press the ▲ or ▼ button to select **MPAA Rating**, then press the **ENTER** button.



4 Press the ▲ or ▼ button to select an appropriate restriction.
Press the **ENTER** button to activate the restriction selected.
The " 🔒 " symbol is indicated. While " 🔒 " is selected, press the **ENTER** button to block or unblock the category.

Press the **EXIT** button to exit.

➢ **Allow All:** Press to unlock all TV ratings.
Block All: Press to lock all TV ratings.



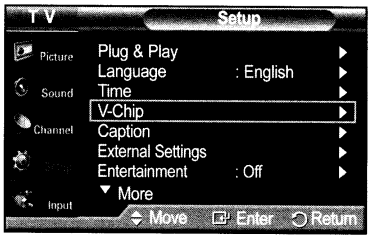
- **G:** General audience (no restriction).
- **PG:** Parental guidance suggested.
- **PG-13:** Parents strongly cautioned.
- **R:** Restricted. Children under 17 should be accompanied by an adult.
- **NC-17:** No children under age 17.
- **X:** Adults only.
- **NR:** Not rated.

➢ The V-Chip will automatically block any category that is "more restrictive". For example, if you block the PG-13 category, then R, NC-17 and X will automatically be blocked also.

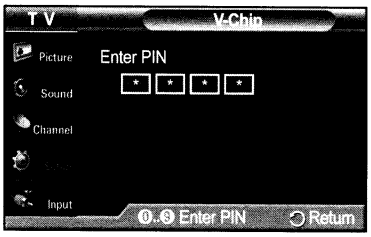
Continued...

How to Set up Restrictions Using "Canadian English" (for Canada Models)

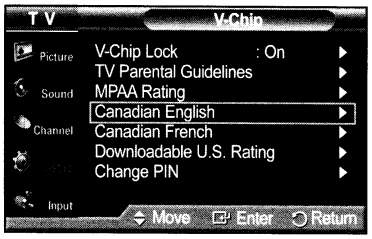
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **V-Chip**, then press the **ENTER** button.
The message **Enter PIN** will appear. Enter your 4 digit PIN number.



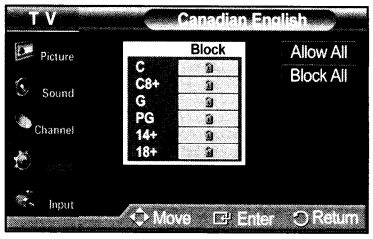
3 The **V-Chip** screen will appear. Press the ▲ or ▼ button to select **Canadian English**, then press the **ENTER** button.



4 Press the ▲ or ▼ button to select an appropriate restriction.
Press the **ENTER** button to activate the restriction selected. The "🔒" symbol is indicated.

Press the **EXIT** button to exit.

➢ **Allow All:** Press to unlock all TV ratings.
Block All: Press to lock all TV ratings.



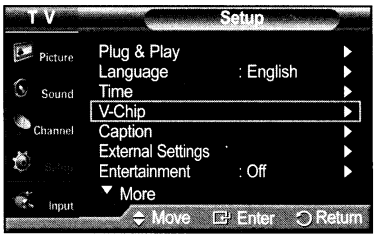
- **C:** Programming intended for children under age 8.
- **C8+:** Programming generally considered acceptable for children 8 years and over to watch on their own.
- **G:** General programming, suitable for all audiences.
- **PG:** Parental guidance.
- **14+:** Programming contains themes or content which may not be suitable for viewers under the age of 14.
- **18+:** Adult programming.

➢ The V-Chip will automatically block any category that is "more restrictive". For example, if you block G category, then PG, 14+ and 18+ will automatically be blocked also.

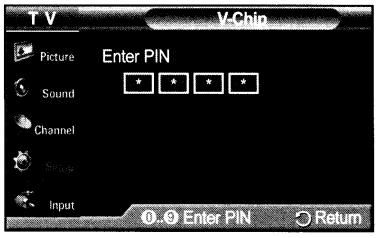
Continued...

How to Set up Restrictions Using "Canadian French" (for Canada Models)

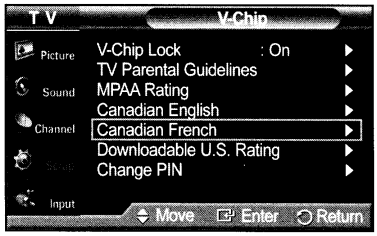
1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.



2 Press the ▲ or ▼ button to select **V-Chip**, then press the **ENTER** button.
The message **Enter PIN** will appear. Enter your 4 digit PIN number.



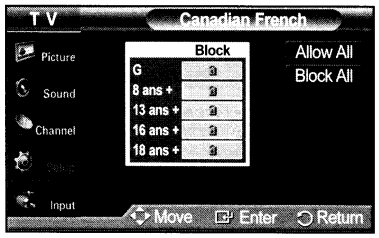
3 The **V-Chip** screen will appear. Press the ▲ or ▼ button to select **Canadian French**, then press the **ENTER** button.



4 Press the ▲ or ▼ button to select an appropriate restriction.
Press the **ENTER** button to activate the restriction selected. The " 🔒 " symbol is indicated.

Press the **EXIT** button to exit.

➢ **Allow All:** Press to unlock all TV ratings.
Block All: Press to lock all TV ratings.



- **G:** General.
- **8 ans+:** Not recommended for young children.
- **13 ans+:** Programming may not be suitable for children under the age of 13.
- **16 ans+:** Programming is not suitable for children under the age of 16.
- **18 ans+:** Programming restricted to adults.

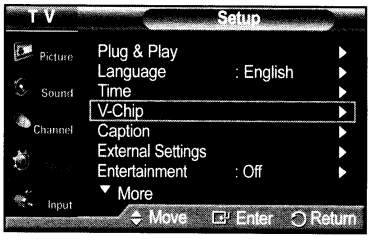
➢ The V-Chip will automatically block any category that is "more restrictive". For example, if you block 8 ans+ category, then 13 ans+, 16 ans+ and 18 ans+ will automatically be blocked also.

Continued...

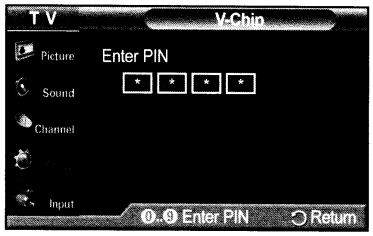
Using the V-Chip for Digital channels

Parental restriction information can be used while watching DTV channels.

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.

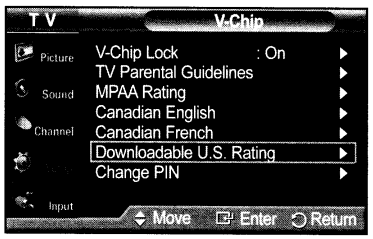


2 Press the ▲ or ▼ button to select **V-Chip**, then press the **ENTER** button.
The message **Enter PIN** will appear. Enter your 4 digit PIN number.



3 The **V-Chip** screen will appear. Press the ▲ or ▼ button to select **Downloadable U.S. Rating**, then press the **ENTER** button.

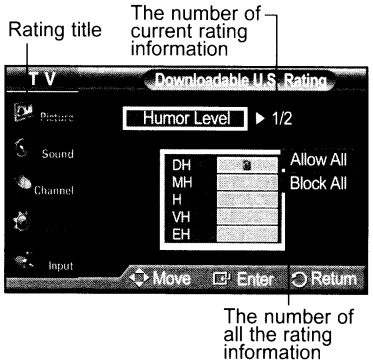
- ➢ If information is not downloaded from the broadcasting station, the **Downloadable U.S. Rating** menu is deactivated.
- ➢ Parental restriction information is automatically downloaded while watching DTV channels. It may take several seconds.
- ➢ The **Downloadable U.S. Rating** menu is available for use after information is downloaded from the broadcasting station. However, depending on the information from the broadcasting station, it may not be available for use.



4 Press the ▲ or ▼ button to select an appropriate restriction
Press the **ENTER** button to activate the restriction selected.
The " 🔒 " symbol is indicated.

Press the **EXIT** button to exit.

- ➢ **Allow All:** Press to unlock all TV ratings.
  Block All: Press to lock all TV ratings.
- ➢ Parental restriction levels differ depending on the broadcasting station.
- ➢ The default menu name and downloadable US rating changes depending on the downloaded information.
- ➢ Even if you set the on-screen display to your desired language, the **Downloadable U.S. Rating** menu will appear in English only.
- ➢ The rating will automatically block certain categories that are more restrictive.
- ➢ The rating titles (for example: Humor Level..etc) and TV ratings (for example: DH,MH,H..etc) may differ depending on the broadcasting station.

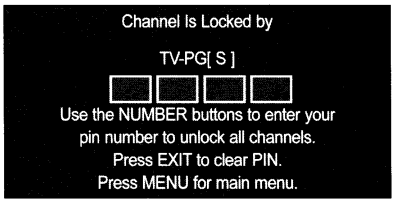


Continued...

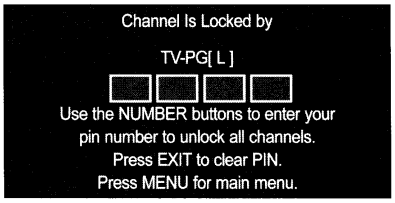
How to Reset the TV after the V-Chip Blocks a Channel ("Emergency Escape")

If the TV is tuned to a restricted channel, the V-Chip will block it. The screen will go blank and the following message will appear:

1 Enter your PIN.
To resume normal viewing, tune to a different channel using **CH** ⌃ or **CH** ⌄ button. Under certain conditions (depending on the rating of the local TV programs) the V-Chip might lock out all the channels. In this case, use the V-Chip function for an "emergency escape":


Channel Is Locked by
TV-PG[S]
Use the NUMBER buttons to enter your pin number to unlock all channels.
Press EXIT to clear PIN.
Press MENU for main menu.

2 Press the **MENU** button. Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.


Channel Is Locked by
TV-PG[L]
Use the NUMBER buttons to enter your pin number to unlock all channels.
Press EXIT to clear PIN.
Press MENU for main menu.

3 Press the ▲ or ▼ button to select **V-Chip**, then press the **ENTER** button.

4 Enter your PIN, then press the **ENTER** button, and press the ▲ or ▼ button to temporarily disable the V-Chip Lock.

➢ If you forget the PIN, press the remote-control buttons in the following sequence, which resets the pin to 0-0-0-0 : Power Off. → MUTE → 8 → 2 → 4 → Power On.

About Anynet+

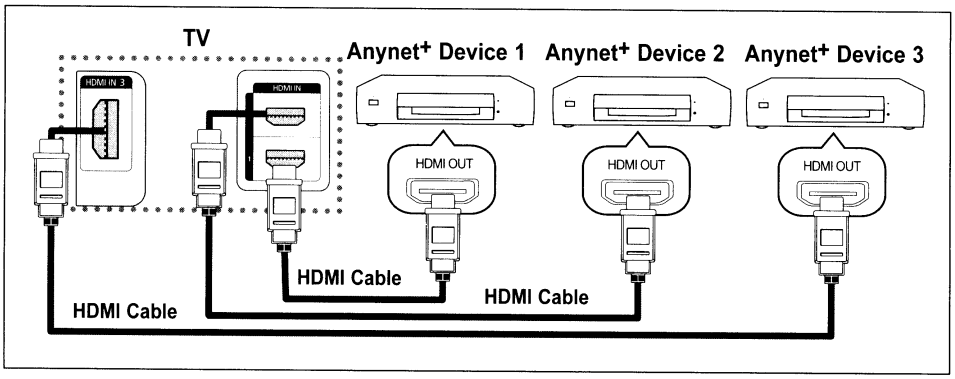
What is Anynet+?

Anynet+ is an AV network system that enables you to control all connected Samsung AV devices with your Samsung TV's remote.

Connecting Anynet+ Devices

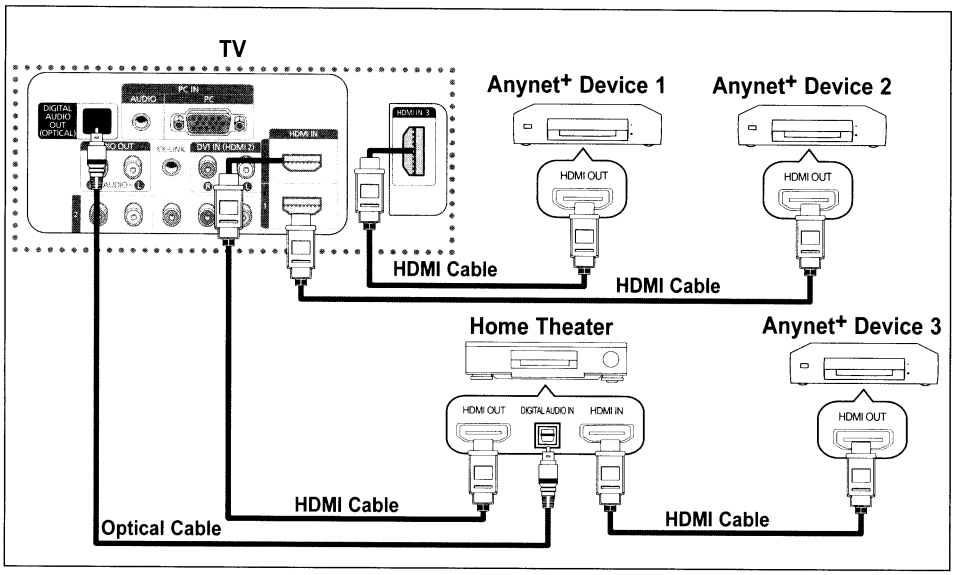
The Anynet+ system can be used only with Samsung AV devices that have the Anynet+ feature. To be sure your Samsung AV device has this feature, check if there is an Anynet+ mark on it.

To directly connect to TV



Connect the [HDMI 1], [HDMI 2] or [HDMI 3] jack on the TV and the HDMI OUT jack of the corresponding Anynet+ device using the HDMI cable.

To connect to Home Theater



1. Connect the [HDMI 1], [HDMI 2] or [HDMI 3] jack on the TV and the HDMI OUT jack of the corresponding Anynet+ device using the HDMI cable.
2. Connect the HDMI IN jack of the home theater and the HDMI OUT jack of the corresponding Anynet+ device using the HDMI cable.

- ➢ Connect the Optical cable between [Digital Audio Out (Optical)] on your TV and Digital Audio Input on the Home Theater.
- ➢ Connect only one Home Theater.
- ➢ When following the connection above, the Optical jack only outputs 2 channel audio. You will only hear sound from the Home Theater's Front Left and Right speakers and the subwoofer. If you want to hear 5.1 channel audio, connect the DIGITAL AUDIO OUT (OPTICAL) jack on the DVD player or Cable/Satellite Box (ie Anynet Device 1 or 2) directly to the Amplifi er or Home Theater, not the TV.
- ➢ You can connect an Anynet+ device using the HDMI cable. Some HDMI cables may not support Anynet+ functions.
- ➢ Anynet+ works when the AV device supporting Anynet+ is in the Standby or On status.
- ➢ Anynet+ supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.

Setting Up Anynet+

The following settings are to use Anynet+ functions.

To use the Anynet+ Function, Anynet+ (HDMI-CEC) must be set to On

1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Input,** then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **Anynet+ (HDMI-CEC)**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.

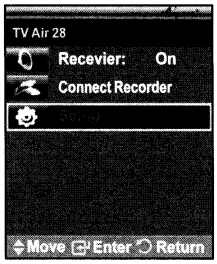
4 Press the ▲ or ▼ button to select **Anynet+ (HDMI-CEC)**.

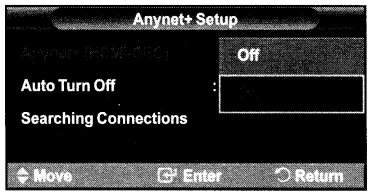
5 Press the ▲ or ▼ button to select **On**, then press the **ENTER** button.

➢ The **Anynet+ (HDMI-CEC)** function is enabled.

➢ If you select **Off**, **Anynet+ (HDMI-CEC)** is disabled.

➢ When the **Anynet+ (HDMI-CEC)** function is disabled, all the Anynet+ related operations are deactivated.





Setting an Anynet+ Device to turn Off Automatically when the TV is Turned Off

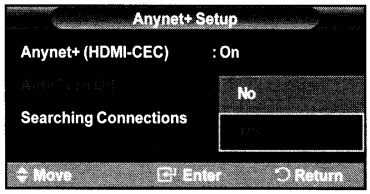
4 Press the ▲ or ▼ button to select **Auto Turn Off**, then press the **ENTER** button.

5 Press the ▲ or ▼ button to select **Yes**, then press the **ENTER** button.

➢ The Auto turn off function is enabled.

➢ If you select **No**, the Auto turn off function is canceled.

Press the **EXIT** button to exit.



➢ The Select Device setting of the TV remote control is to be set to TV to use the Anynet+ function.

➢ If you set **Auto Turn Off** to **Yes**, connected external devices are also turned off when the TV is turned off. However, if the device is recording, it may not be turned off.

Scanning and Switching between Anynet+ Devices

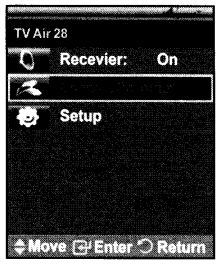
1 Press the **TOOLS** button.

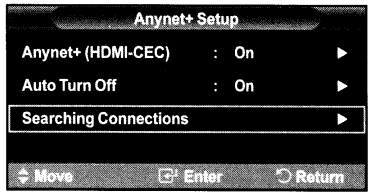
➢ Anynet+ devices connected with the TV are listed.

2 Press the ▲ or ▼ button to select to a particular device and press the **ENTER** button. It is switched to the selected device.

3 If you cannot find a device you want, press the ▲ or ▼ button to select **Searching Connections**, then press the **ENTER** button.

The message **Configuring Anynet+ Connection...** is displayed.
When searching devices completes, the connected devices are listed in the Anynet+ menu.





➢ Switching to the selected devices may take up to 2 minutes. You cannot cancel the operation during the switching operation.

➢ The time required to scan for devices is determined by the number of connected devices.

➢ When the device scan is complete, the number of found devices is not displayed.

➢ Although the TV automatically scans devices when it is turned on using the **POWER** button, devices connected when the TV is already on are not displayed in the device list. In this case, select the Searching Connections menu to search devices.

➢ If you have selected external AV device by pressing the **SOURCE** button, you cannot use the Anynet+ function. Make sure to switch to an Anynet+ device by using the **TOOLS** button.

Anynet+ Menu

The Anynet+ menu changes depending on the type and status of the Anynet+ devices connected to the TV.

Anynet+ Menu	Description
View TV	Switches from Anynet+ to TV broadcast mode.
Record	Starts a recording. (This menu works only for a device supporting recording.)
(Device_Name) Menu	Shows the menu of the connected device. Example: When a DVD Recorder is connected, the DVD Recorder's title menu appears.
(Device_Name) Operation	Shows the play control menu of the connected device. Example: When a DVD Recorder is connected, the play control menu of the DVD Recorder appears.
Connect (Device_Name)	Your TV connects to the corresponding device.
Receiver	Sound is output through the receiver (home theater). A audio stream in HDMI is one way only from Device to TV. But there's SPDIF output in TV. So TV sound can be sent to HT.
Setup	You can set the Anynet+ (HDMI-CEC), auto turn off, and searching connections for using Anynet+.

TV Remote Control Buttons Available in Anynet+ Mode

Device Type	Operating Status	Available Buttons
Anynet+ Device	After switching to the device, when the menu of the corresponding device is displayed on the screen.	Numeric buttons ▲/▼/◄/►/**ENTER** buttons Color buttons EXIT button
	After switching to the device, while playing a file	◄◄ (Backward search) ►► (Forward search) ■ (Stop) ► II (Play/Pause)
Device with built-in Tuner	After switching to the device, when you are watching a TV program	CH ∧ / ∨ button
Audio Device	When Receiver is activated	VOL + / − button MUTE button

- ➢ The Anynet+ function only works when the remote control is set to TV.
- ➢ The **REC** button works only while in the recordable state.
- ➢ You cannot control Anynet+ devices using the buttons on the side of the TV. You can control Anynet+ devices only using the TV remote control.
- ➢ The TV remote control may not work under certain conditions. In this case, re-select the Anynet+ device.
- ➢ The Anynet+ functions don't operate for the products from other manufacturers.
- ➢ The ◄◄, ►► operations may differ depending on the device.

Recording

You can make a recording of a TV program using a Samsung recorder.

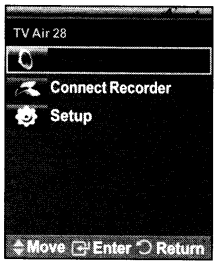
Press the **RECORD** button.
Recording begins. (Only when the Anynet+ enabled recording device is connected.)

- ➢ You can record the source streams by selecting **Record** after pressing the **TOOLS** button.
- ➢ The current TV program is recorded in the Watching TV status. If you are watching video from another device, the video from the device is recorded.
- ➢ Before recording, check whether the antenna jack is properly connected to the recording device. For the antenna connection to the recording device, please refer to device's user manual.

Continued...

Listening through a Receiver (Home theater)

You can listen to sound through a receiver instead of the TV speaker.



1 Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Input**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **Anynet+ (HDMI-CEC)**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select **Receiver**, then press the **ENTER** button.

4 Press the ◄ or ► button to select to **On**, then press the **ENTER** button.
Now you can listen to sound through the receiver.

5 Press the **EXIT** button to exit.

➢ When the receiver (home theater) is set to On, you can hear sound output from the TV's Optical jack. When the TV is displaying a DTV(air) signal, the TV will send out 5.1 channel sound to the Home theater receiver. When the source is a digital component such as a DVD and is connected to the TV via HDMI, only 2 channel sound will be heard from the Home Theater receiver.
➢ If your receiver supports audio only, it may not appear in the device list.
➢ The receiver will work when you have properly connected the Optical IN jack of the receiver to the Optical Out jack of the TV.
➢ When listening through the receiver, there are restrictions for using the audio-related (MTS, Preferred language) menus.
➢ If there is a power interruption to the TV when the **Receiver** is set to **On** (by disconnecting the power cord or a power failure), the **TV Speaker** may be set to **Off** when you turn the TV on again.

Check Points before Requesting Service

Symptom	Solution
Anynet+ does not work.	■ Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. ■ Connect only one receiver (home theater). ■ Check if the Anynet+ device power cord is properly connected. ■ Check the Anynet+ device's Video/Audio/HDMI cable connections. ■ Check whether Anynet+ (HDMI-CEC) is set to On in the Anynet+ setup menu. ■ Check whether the TV remote control is in TV mode. ■ Check whether it is Anynet+ exclusive remote control. ■ Anynet+ doesn't work in certain situations. (Searching channels, Plug & Play, etc.) ■ When connecting or removing the HDMI cable, please make sure to search devices again or turn your TV off and on again. ■ Check if the Anynet+ Function of Anynet+ device is set on.
I want to start Anynet+.	■ Check if the Anynet+ device is properly connected to the TV and check if the Anynet+ (HDMI-CEC) is set to On in the Anynet+ Setup menu. ■ Press the **TV** button on the TV remote control to switch to TV. Then press the **TOOLS** button to show the Anynet+ menu and select a menu you want.
I want to exit Anynet+.	■ Select **View TV** in the Anynet+ menu. ■ Press the **SOURCE** button on the TV remote control and select a device other than Anynet+ devices. ■ Press **CH**, **CH LIST**, **PRE-CH**, and **FAV.CH** to change to the TV mode. (Note that the channel button operates only when an Anynet+ device with a built-in tuner is not connected.)
The Connecting to Anynet+ device... message appears on the screen.	■ You cannot use the remote control when you are configuring Anynet+ or switching to a view mode. ■ Use the remote control when the Anynet+ setting or switching to view mode is complete.
The Anynet+ device does not play.	You cannot use the play function when Plug & Play is in progress.
The connected device is not displayed.	■ Check whether or not the device supports Anynet+ functions. ■ Check whether or not the HDMI cable is properly connected. ■ Check whether Anynet+ (HDMI-CEC) is set to On in the Anynet+ setup menu. ■ Search Anynet+ devices again. ■ You can connect an Anynet+ device using the HDMI cable only. Some HDMI cables may not support Anynet+ functions.
The TV program cannot be recorded.	Check whether the antenna jack on the recording device is properly connected.
The TV sound is not output through the receiver.	Connect the optical cable between TV and the receiver.

Appendix

Troubleshooting

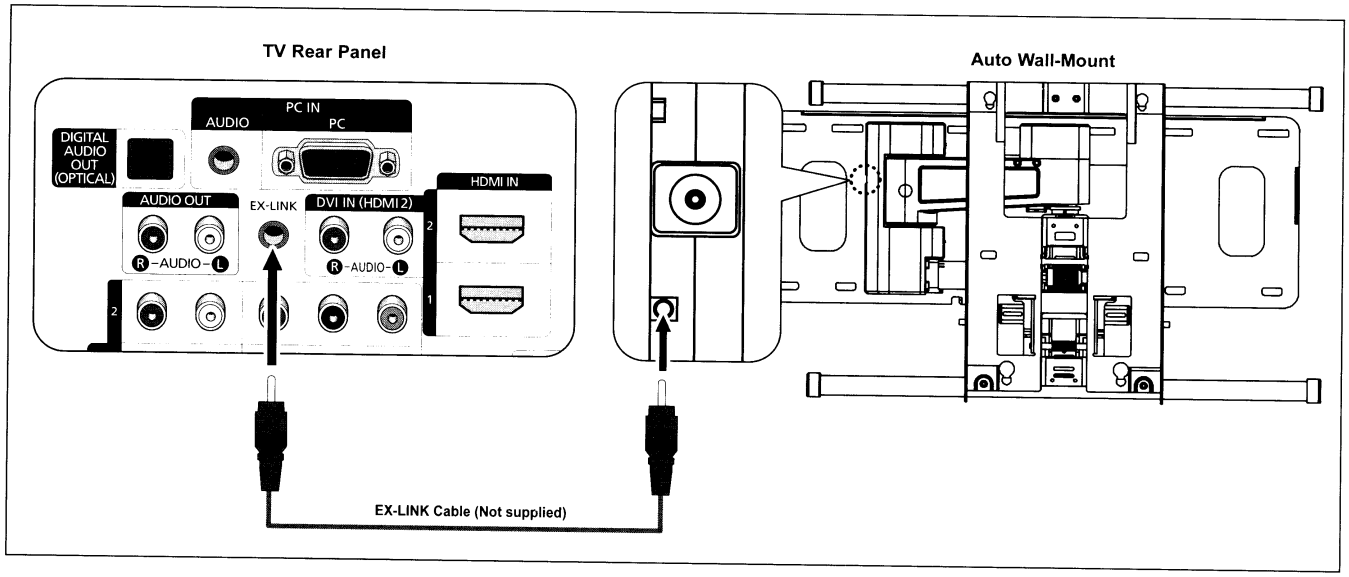
If the TV seems to have a problem, first try this list of possible problems and solutions.
If none of these troubleshooting tips apply, call Samsung customer service at 1-800-SAMSUNG.

Problem	Possible Solution
Poor picture quality.	Try another channel. Adjust the antenna. Check all wire connections.
Poor sound quality.	Try another channel. Adjust the antenna.
No picture or sound.	Try another channel. Press the **SOURCE** button. Make sure the TV is plugged in. Check the antenna connections. Make sure the **MUTE** button is off.
No sound or sound is too low at maximum volume.	First, check the volume of units connected to your TV (digital broadcasting receiver, DVD, cable broadcasting receiver, VCR, etc.). Then, adjust the TV volume accordingly.
Picture rolls vertically.	Check all connections.
The TV operates erratically.	Unplug the TV for 30 seconds, then try operating it again.
The TV won't turn on.	Make sure the wall outlet is working.
Remote control malfunctions	Replace the remote control batteries. Clean the upper edge of the remote control (transmission window). Check the battery terminals. Make sure the remote has batteries. Check that the "+" and "-" ends of the batteries are inserted correctly.
Digital broadcasting screen problem.	Please check the digital signal strength and input antenna.
The image is too light or too dark.	Adjust the Brightness and Contrast. Adjust the Fine tuning.
The image is too large or too small.	Adjust the Size settings.
The visual qualities of digital channels vary.	The visual qualities of digital channels may vary depending on the original production method (analog or digital). - If the original production method is digital: High visual quality. - If the original production method is analog: The digital program displayed on the screen is originally an analog program which has been converted to digital. The visual quality is of an SD(Standard Definition) grade.
Screen is black and power indicator light blinks steadily.	On your computer; check the Power and Signal Cable. The TV is using its power management system. Move the computer's mouse or press any key on the keyboard.
	On your equipment check (STB, DVD, etc) ; Power and Signal Cable. The TV is using its power management system. Press the Source button on the panel or remote control. Turn the TV off and on.
Although the TV caption shows HD, the visual quality is not satisfactory.	The HD(High Definition) caption that appears when switching channels or when pressing the Information button on the remote control means the selected channel is a digital channel. If the broadcasting station converts an analog signal into digital and transmits the signal, the visual quality may not be perfect.
A distorted picture appears in the corner of the screen.	If **Just Scan** is selected in some external devices, a distorted picture may appear in the corner of the screen. This symptom is caused by external devices, not the TV.
A Strange sound is heard.	This is caused by minor systems operation and is not a defect.
The "Resets all settings to the default values" message appears.	This appears when you press and hold the **EXIT** button for a while. The product settings are reset to the factory defaults.

➢ This Plasma panel uses a panel consisting of sub pixels (2,359,296 pixels (for 42 inch models) / 3,147,264 pixels (for 50 inch models)) which require sophisticated technology to produce. However, there may be few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.

Wall- mount adjustment (Sold separately)

Once the wall mount is installed, the position of your TV can be easily adjusted.



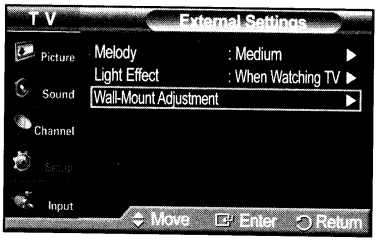
Entering the menu

1 Press the ▲, ▼, ◄ or ► button on your remote control.

➢ The Wall Mount Adjustment screen is displayed.

➢ If the Wall Mount Adjustment screen is not displayed when clicking on a direction button while watching your TV, use the menu to display that screen.

- Press the **MENU** button to display the menu.
  Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** button.
- Press the ▲ or ▼ button to select **External Settings**, then press the **ENTER** button.
- Press the ▲ or ▼ button to select **Wall-Mount Adjustment**, then press the **ENTER** button.

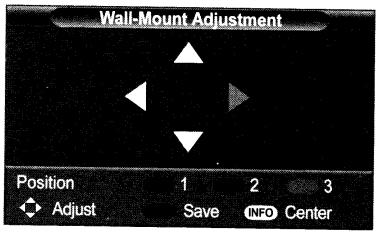


Remembering the Position

2 Adjust to the desired position using the ▲, ▼, ◄, ► buttons.

➢ If you press an arrow button when no OSD is displayed on the TV screen, the Adjustment screen appears.

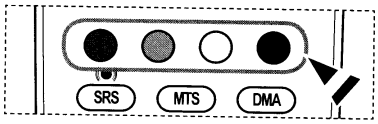
➢ Press the **INFO** button to reset. Press the ◄ or ► button to select **Yes**, then press the **ENTER** button. The position is initialized to the default setting.



3 Press the Blue button.
Press the ▲ and ▼ buttons to select a save mode from either **Position 1**, **Position 2** or **Position 3** in order to save the current position.

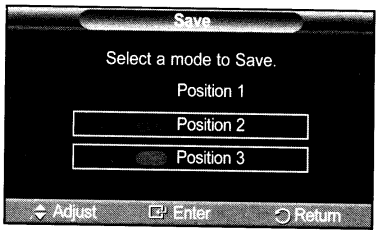
➢ To not save the current position, press the **RETURN** button.

➢ When selecting a save mode, you cannot use the Color buttons.



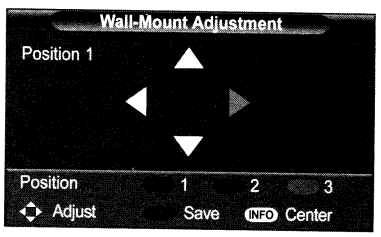
4 Press the **ENTER** button to save.

➢ When **Position 1** is selected, the message **Current position saved as Position 1** is displayed.



5 Press the **ENTER** button.

➢ The saved Position appears on the left side of the OSD.



Continued...

Moving to the remembered position

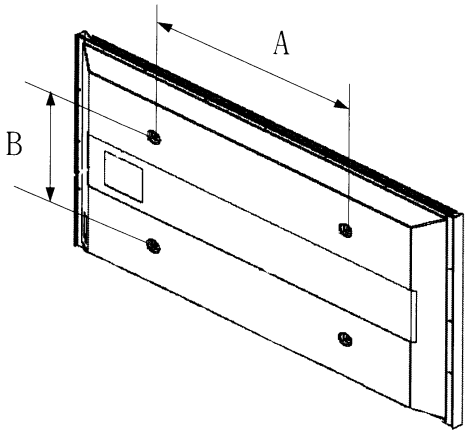
1 Complete Step 1 of **Entering the menu**.

2 Pressing a Color (Red, Green, Yellow) button moves the auto wall mount to the saved position.

- ➢ You can move the wall mount to one of the 3 pre-set positions by pressing the Red (Position 1), Green (Position 2) or Yellow (Position 3) buttons.
- ➢ If you adjust the positon after moving to a pre-set position, the position display will disappear.
- ➢ For installation, refer to the Installation Manual provided with the wall mount.
- ➢ For product installation and the installation and moving of the wall mount, make sure to consult a specialized installation company.
- ➢ This installation manual is to be used when attaching the wall mount to a wall. When attaching to other building materials, please contact your nearest dealer.
- ➢ The auto wall mount will not work when Anynet+ is operating.

Wall Mount Kit Specifications (VESA)

Install your wall mount on a solid wall perpendicular to the floor.
When attaching to other building materials, please contact your nearest dealer.
If installed on a ceiling or slanted wall, it may fall and result in severe personal injury.



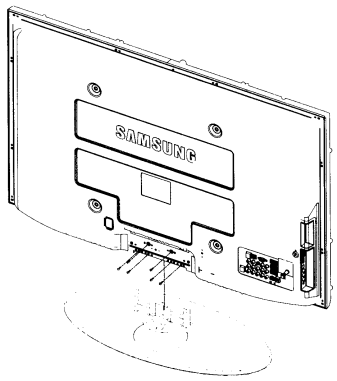
Product Family	inch	VESA Spec. (A * B)	Standard Screw	Quantity
LCD-TV	23 ~ 26	200 * 100	M4	4
	32 ~ 40	200 * 200	M6	
	46 ~ 52	400 * 400 600 * 400	M8	
	57	700 * 400 (No VESA)		
	57 ~ 70	800 * 400		
	80 ~	1400 * 800		
PDP-TV	42 ~ 58	400 * 400 600 * 400	M8	4
	63	676 * 407 (No VESA)		6
	63 ~ 70	800 * 400		4
	80 ~	1400 * 800		4

- We provided the standard dimensions for wall mount kits as shown in the table above.
- When purchasing our wall mount kit, a detailed installation manual and all parts necessary for assembly are provided.
- Do not use screws longer than the standard dimension, as they may cause damage to the inside of the TV set.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on their specifications.
- Do not use screws that do not comply with the VESA standard screw specifications.
- Do not fasten the screws too strongly, this may damage the product or cause the product to fall, leading to personal injury. Samsung is not liable for these kinds of accidents.
- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.
- Our 57" (700*400) and 63" (676*407) models do not comply with VESA Specifications. Therefore, you should use our dedicated wall mount kit for this model.
- Do not exceed 15 degrees tilt when mounting this TV.

Do not install your Wall Mount Kit while your TV is turned on.
It may result in personal injury due to electric shock.

How to assemble the Stand-Base

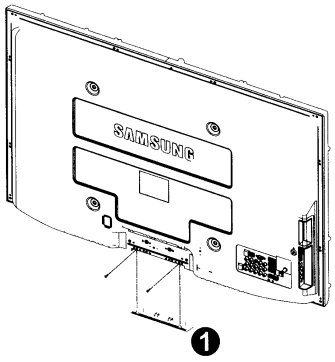
Using the 6 screws for securing the stand base and the monitor, firmly attach the monitor to the stand base.
(The exterior of the set may be different than the picture.)



Warning
Firmly secure the stand to the TV before moving it, as the stand may fall and could cause serious injury.

➢ Two or more people should carry the TV. Never lay the TV on the floor because of possible damage to the screen. Always store the TV upright.

When mounting your TV on a wall, install the cover (❶) on the stand-base using two screws.

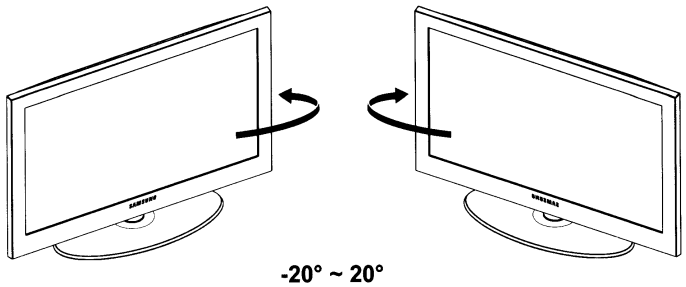


Specifications

Model Name	PN42A450P1D	PN50A450P1D
Screen Size (Diagonal)	42 inch	50 inch
PC Resolution	1024 x 768 @ 60 Hz	1360 x 768 @ 60 Hz
Sound (Output)	10 W	10 W
Dimension (W x H x D) Body With stand	 41.5 X 26.3 X 3.7 inches (1055.0 X 667.4 X 93.2 mm) 41.5 X 28.6 X 12.4 inches (1055.0 X 724.9 X 315.9 mm)	 48.4 X 29.8 X 3.7 inches (1230.2 X 755.7 X 95.0 mm) 48.4 X 32.1 X 12.4 inches (1230.2 X 812.7 X 315.9 mm)
Weight Body With stand	 59.3 lbs (26.9 Kg) 67.2 lbs (30.5 Kg)	 75.4 lbs (34.2 Kg) 81.6 lbs (37.0 Kg)
Environmental Considerations Operating Temperature Operating Humidity Storage Temperature Storage Humidity	 50 °F to 104 °F (10 °C to 40 °C) 10% to 80%, non-condensing -4 °F to 113 °F (-20 °C to 45 °C) 5% to 95%, non-condensing	

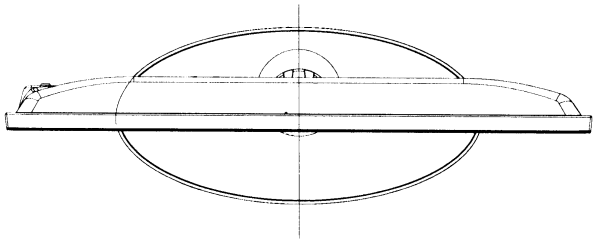
➢ This device is a Class B digital apparatus.
➢ Design and specifications are subject to change without prior notice.
➢ For the power supply and Power Consumption, refer to the label attached to the product.

Stand Swivel (Left / Right)

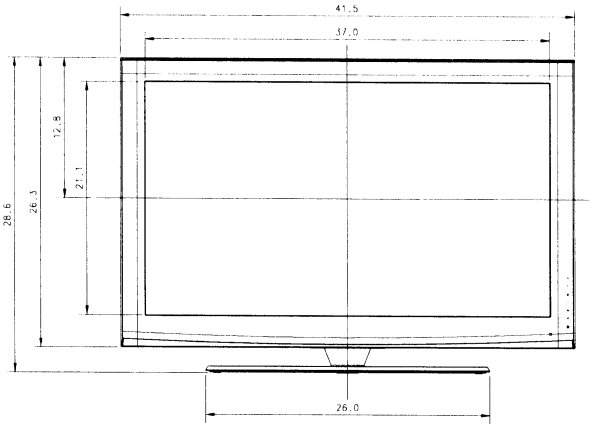


-20° ~ 20°

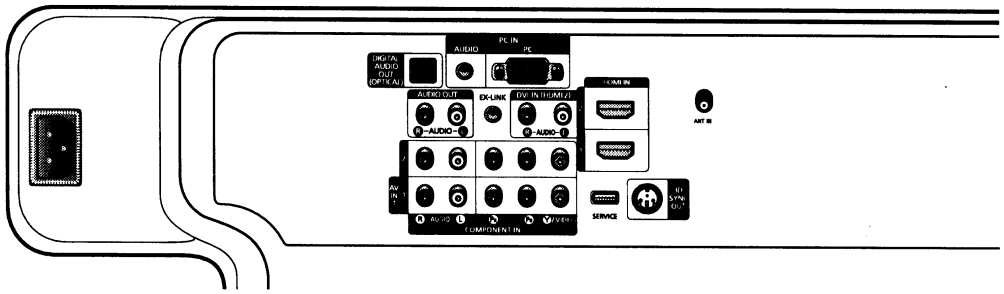
Dimensions (PN42A450P1D)



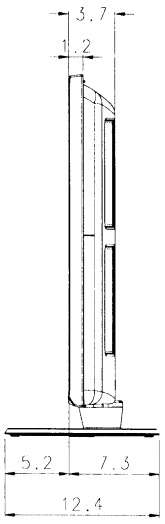
TOP VIEW



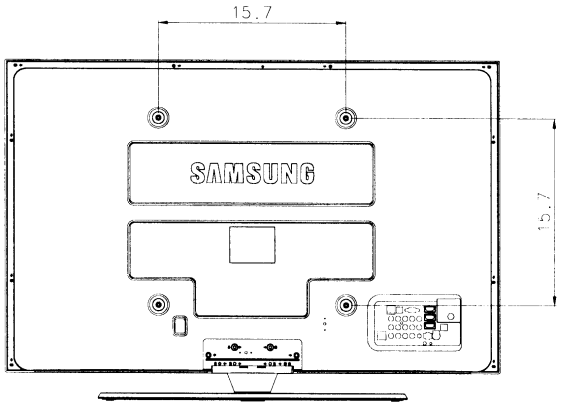
FRONT VIEW



JACK PANEL DETAIL 3.7"H x 7.2"W



SIDE VIEW



REAR VIEW

NOTE: All drawings not necessarily to scale. Some dimensions are subject to change without prior notice. Refer to dimensions on each unit prior to performing any carpentry. Not responsible for typographical or printed errors.

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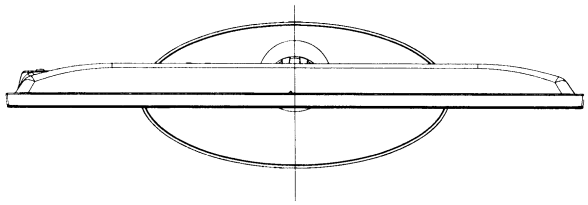
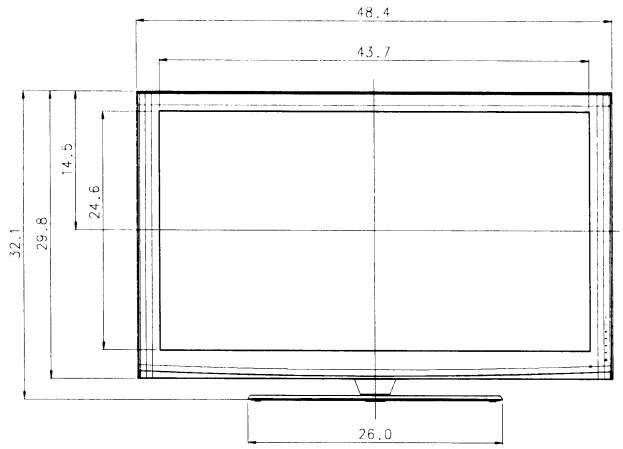
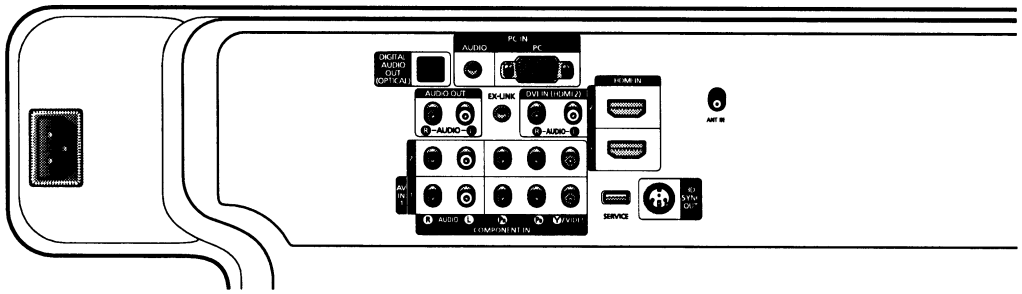
Dimensions (PN50A450P1D)



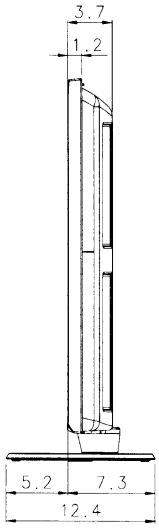
TOP VIEW



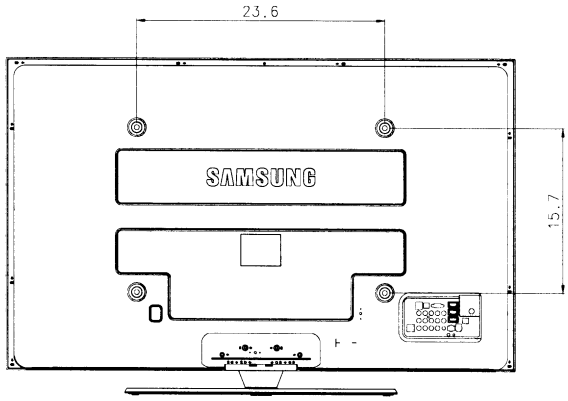
FRONT VIEW



JACK PANEL DETAIL 3.7"H x 7.2"W



SIDE VIEW



REAR VIEW

NOTE: All drawings not necessarily to scale. Some dimensions are subject to change without prior notice. Refer to dimensions on each unit prior to performing any carpentry. Not responsible for typographical or printed errors.

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Contact SAMSUNG WORLD-WIDE
If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

Contacte con SAMSUNG WORLD WIDE
Si tiene alguna pregunta o comentario referente a nuestros productos, por favor contacte con nuestro Servicio de Atención al Cliente

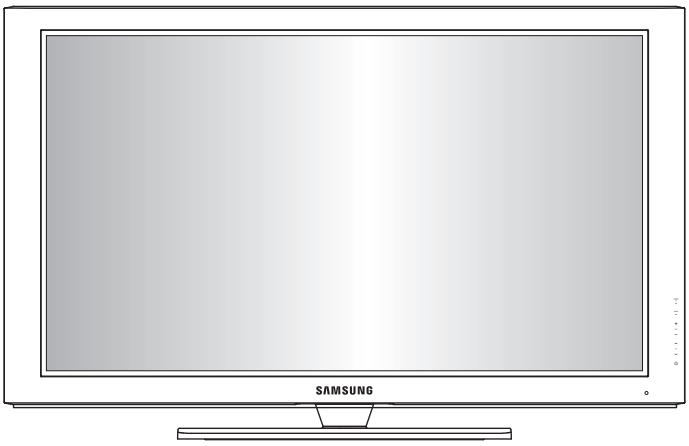
Country	Customer Care Center ☎	Web Site	Address
CANADA	1-800-SAMSUNG (7267864)	www.samsung.com/ca	Samsung Electronics Canada Inc., Customer Service 55 Standish Court Mississauga, Ontario L5R 4B2 Canada
			Samsung Electronique Canada Inc., Service à la Clientèle 55 Standish Court Mississauga, Ontario L5R 4B2 Canada
U.S.A	1-800-SAMSUNG (7267864)	www.samsung.com	Samsung Electronics America, Inc. 105 Challenger Road Ridgefield Park, NJ 07660-0511

BN68-01399A-00

Quick Setup Guide

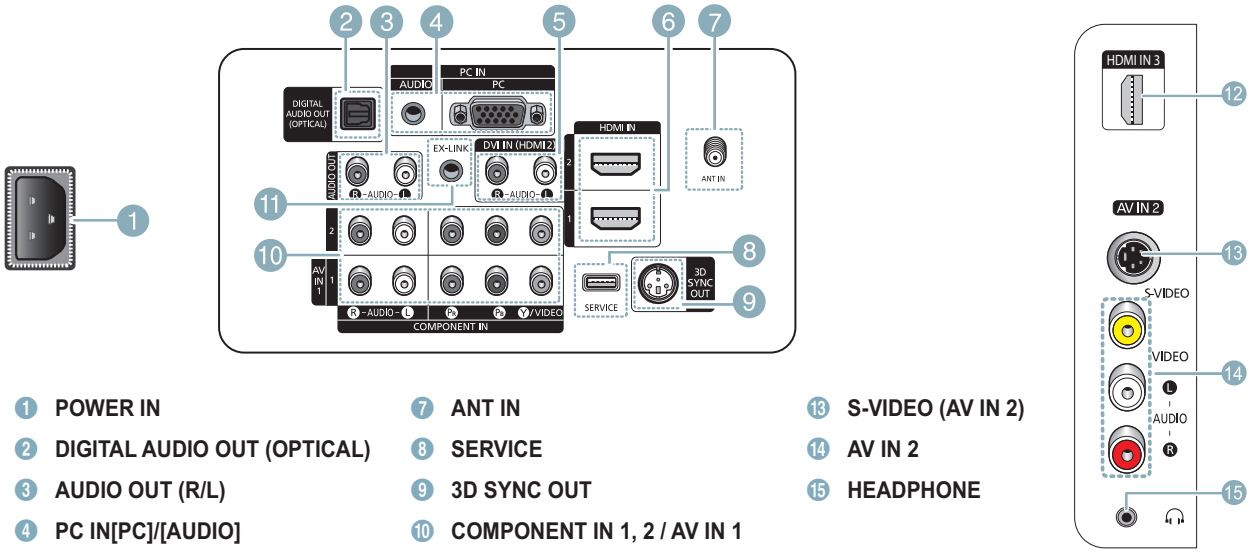
PN42A450P1D/ PN50A450P1D

STOP
Please do not return this unit
If you are having problems operating this TV,
Please call:
1-800-SAMSUNG (1-800-726-7864)
For Web support please visit
www.samsung.com/support



1-800-SAMSUNG (7267864)
Samsung Electronics America, Inc.
105 Challenger Road Ridgefield Park, NJ 07660-0511
Samsung Electronics Canada Inc., Customer Service
55 Standish Court Mississauga, Ontario L5R 4B2
Call center hours of operation (Mon-Sun 9AM-12AM EST).
To register this product please visit
www.samsung.com/global/register.

Rear & Side Panel Jacks



1. POWER IN
2. DIGITAL AUDIO OUT (OPTICAL)
3. AUDIO OUT (R/L)
4. PC IN[PC]/[AUDIO]
5. DVI IN (HDMI 2) (AUDIO-R/L)
6. HDMI IN 1, 2
7. ANT IN
8. SERVICE
9. 3D SYNC OUT
10. COMPONENT IN 1, 2 / AV IN 1
11. EX-LINK
12. HDMI IN 3
13. S-VIDEO (AV IN 2)
14. AV IN 2
15. HEADPHONE

Video Input Performance Comparison

/	**HDMI/DVI**	Best
/	**PC/COMPONENT**	Better
	S-VIDEO	Good
	VIDEO	Normal

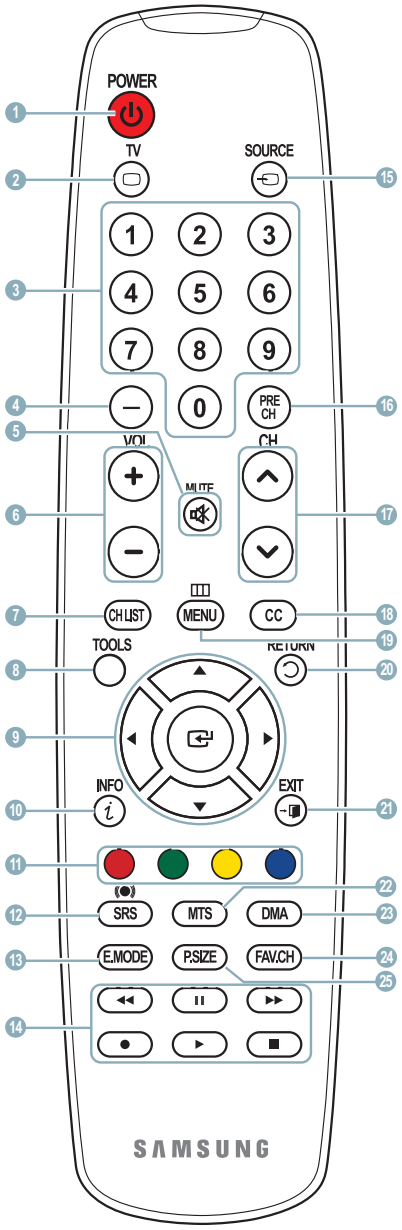
Audio Output Performance Comparison

	OPTICAL (Digital)	Best
	AUDIO (Analog)	Normal

Remote Control Buttons

You can use the remote control up to a distance of about 23 feet from the TV.

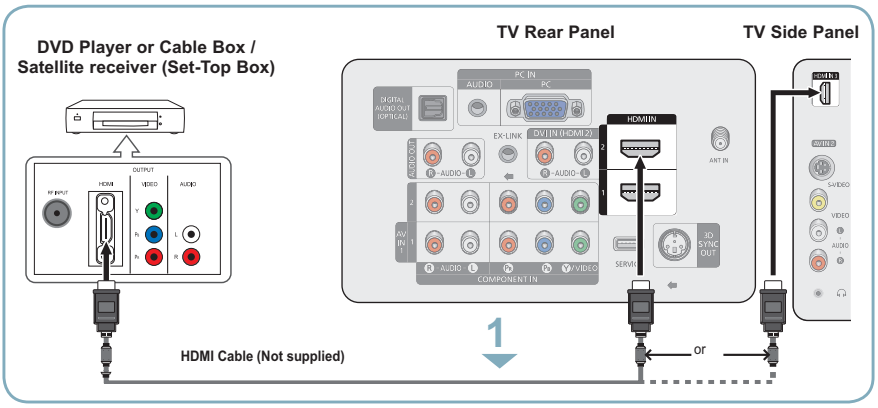
1. **POWER**
   Turns the TV on and off.
2. **TV**
   Selects the TV mode directly.
3. **NUMERIC BUTTONS**
   Press to directly select a channel.
4. **–**
   Press to select additional channels (digital and analog) being broadcast by the same station. For example, to select channel “54-3”, press “54”, then press “–” and “3”.
5. **MUTE**
   Press to temporarily cut off the sound.
6. **VOL**
   Press to increase or decrease the volume.
7. **CH LIST**
   Used to display Channel Lists on the screen.
8. **TOOLS**
   Use to quickly select frequently used functions.
9. **UP▲/DOWN▼/LEFT◄/ RIGHT►/ ENTER**
   Use to select on-screen menu items and change menu values.
10. **INFO**
    Press to display information on the TV screen.
11. **COLOR BUTTONS**
    Use these buttons in the Channel list.
12. **SRS**
    Selects SRS TruSurround XT mode.
13. **E.MODE**
    Press to select the preset display and sound modes for sports, cinema and games.
14. Use these buttons in the DMA and Anynet+ modes.
    (: This remote can be used to control recording on Samsung recorders with the Anynet+ feature)
15. **SOURCE**
    Press to display all of the available video sources.
16. **PRE-CH**
    Tunes to the previous channel.
17. **CH**
    Press to change channels.
18. **CC**
    Controls the caption decoder.
19. **MENU**
    Displays the main on-screen menu.
20. **RETURN**
    Returns to the previous menu.
21. **EXIT**
    Press to exit the menu.
22. **MTS**
    Press to choose stereo, mono or Separate Audio Program (SAP broadcast).
23. **DMA (Digital Media Adapter)**
    Use this when connecting a Samsung DMA device through an HDMI interface and switching to DMA mode.
    For more information on the operating procedures, refer to the user manual of the DMA.
    ➢ This button is available when “Anynet(HDMI-CEC)” is “On”. (see page 65 of the owner's manual)
24. **FAV.CH**
    Press to switch to your favorite channels.
25. **P.SIZE**
    Press to change the screen size.



➢ The performance of the remote control may be affected by bright light..

Connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box) via HDMI

Connecting to HDMI (High Definition Multimedia Interface)

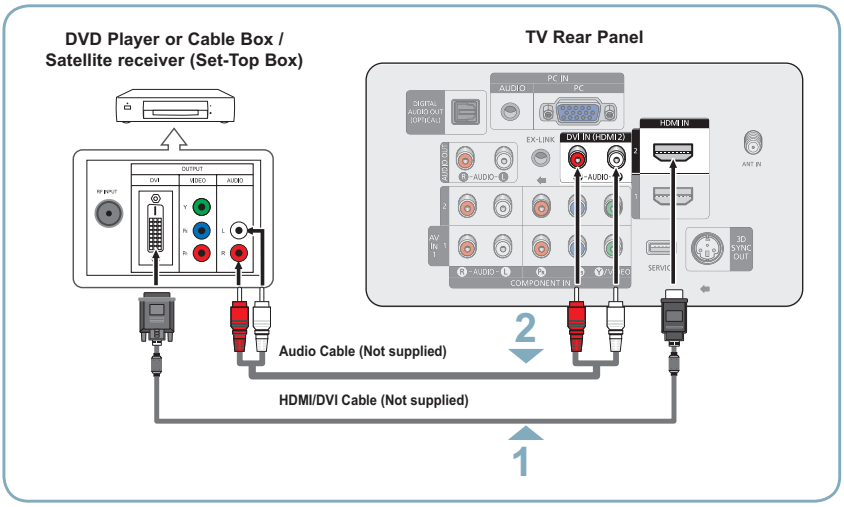


1. Connect an HDMI Cable between the HDMI IN(1, 2 or 3) jack on the TV and the HDMI jack on the DVD Player or Cable Box / Satellite receiver (Set-Top Box).
2. Press the **SOURCE** button on the remote control until you see the DVD Player or Cable Box/Satellite receiver (Set- Top Box) signal (see "To Select the Source" on page 10)

➢ Each DVD Player or Cable Box / Satellite receiver (Set-Top Box) has a different back panel configuration.

➢ When connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box), match the color of the connection terminal to the cable.

Connecting to DVI (Digital Visual Interface)



1. Connect a HDMI/DVI Cable or DVI-HDMI Adapter between the HDMI IN 2 jack on the TV and the DVI jack on the DVD Player or Cable Box/ Satellite receiver (Set- Top Box).
2. Connect Audio Cables between the DVI IN (HDMI 2) [R-AUDIO-L] jack on the TV and the AUDIO OUT jacks on the DVD Player or Cable Box/Satellite receiver (Set-Top Box).
3. Press the **SOURCE** button on the remote control until you see the DVD Player or Cable Box/Satellite receiver (Set- Top Box) signal (see "To Select the Source" on page 10)

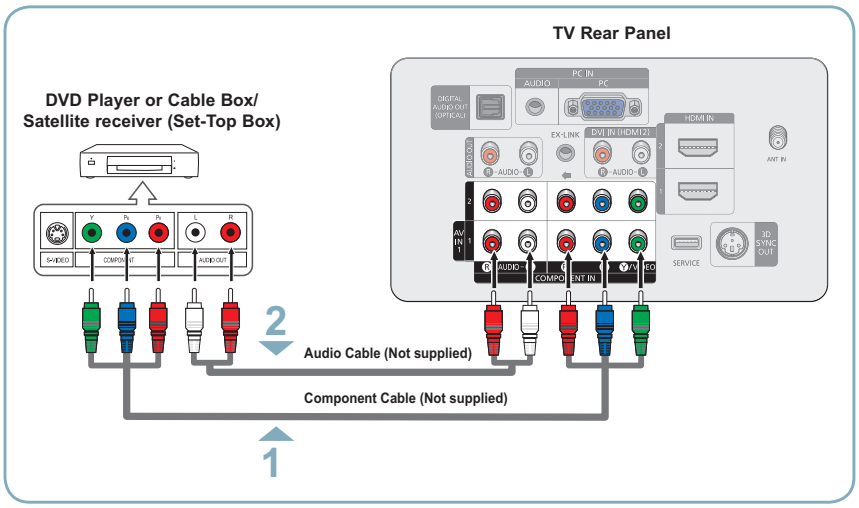
➢ When connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box), match the color of the connection terminal to the cable.

➢ When using an HDMI / DVI cable connection, you must use the HDMI IN 2 jack.

➢ Each DVD Player or Cable Box / Satellite receiver (Set-Top Box) has a different back panel configuration.

Connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box) via Component cables

Connecting to Y, PB, PR



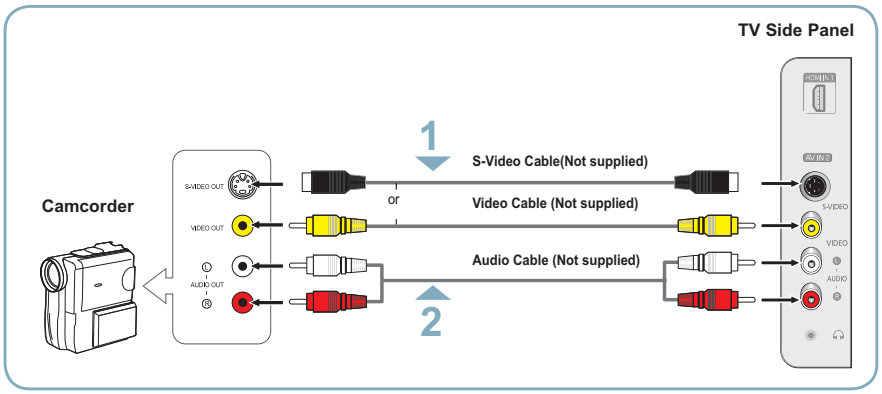
1. Connect Component Cables between the COMPONENT IN (1 or 2) [Y, PB, PR] jacks on the TV and the COMPONENT [Y, PB, PR] jacks on the DVD Player or Cable Box / Satellite receiver(Set-Top Box).
2. Connect Audio Cables between the COMPONENT IN (1 or 2) [R-AUDIO-L] jacks on the TV and the AUDIO OUT jacks on the DVD Player or Cable Box / Satellite receiver (Set-Top Box).
3. Press the **SOURCE** button on the remote control until you see the DVD Player or Cable Box/Satellite receiver (Set- Top Box) signal (see “To Select the Source” on page 10)

➢ Component video separates the video into Y (Luminance (brightness)), PB (Blue) and PR (Red) for enhanced video quality. Be sure to match the component video and audio connections. For example, if connecting the video cable to COMPONENT IN 1, connect the audio cable to COMPONENT IN 1 also.

➢ Each DVD Player or Cable Box / Satellite receiver (Set-Top Box) has a different back panel configuration.

➢ When connecting a DVD Player or Cable Box / Satellite receiver (Set-Top Box), match the color of the connection terminal to the cable.

Connecting a Camcorder



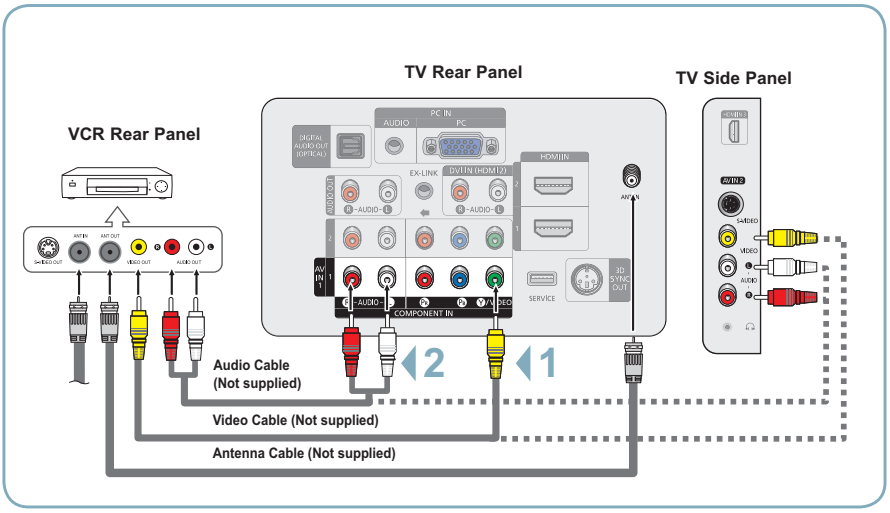
1. Connect a Video Cable (or S-Video Cable) between the AV IN 2 [VIDEO] (or S-VIDEO) jack on the TV and the VIDEO OUT jack on the Camcorder.
2. Connect Audio Cables between the AV IN 2 [L-AUDIO-R] jacks on the TV and the AUDIO OUT jacks on the Camcorder.
3. Press the **SOURCE** button on the remote control until you see the Camcorder signal (see “To Select the Source” on page 10)

➢ Each Camcorder has a different back panel configuration.

➢ When connecting a Camcorder, match the color of the connection terminal to the cable.

Connecting a VCR

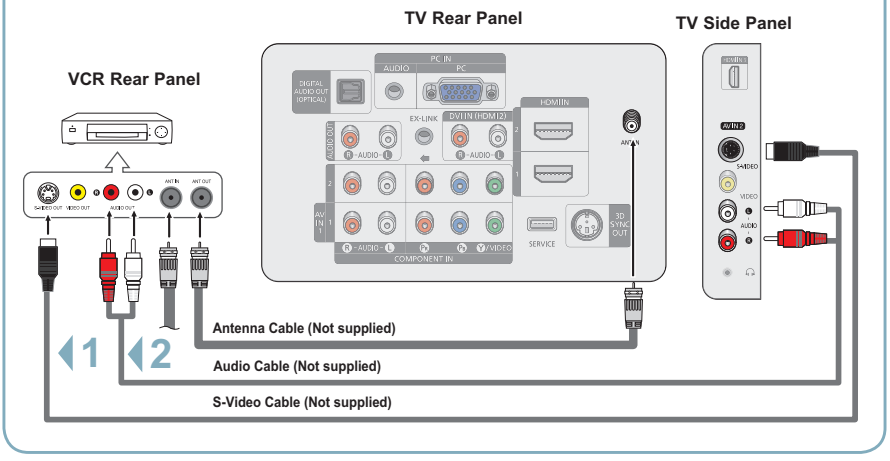
Connecting to Video



1. Unplug the cable or antenna from the back of the TV.
2. Connect the cable or antenna to the ANT IN terminal on the back of the VCR.
3. Connect an Antenna Cable between the ANT OUT terminal on the VCR and the ANT IN terminal on the TV.
4. Connect a Video Cable between the VIDEO OUT jack on the VCR and the AV IN 1 [Y/VIDEO] or AV IN 2 [VIDEO] jack on the TV.
5. Connect Audio cables between the AV IN 1 [R-AUDIO-L] jacks on the TV and the AUDIO OUT jacks on the VCR.
6. Press the **SOURCE** button on the remote control until you see the VCR signal (see “To Select the Source” on page 10).

- When connecting a VCR, match the color of the connection terminal to the cable.
- If you have a “mono” (non-stereo) VCR, use a Y-connector (not supplied) to hook up to the right and left audio input jacks of the TV. If your VCR is stereo, you must connect two cables.
- Each VCR has a different back panel configuration.
- When connecting to AV IN 1, the color of the AV IN 1 [Y/VIDEO] jack (Green) does not match the color of the video cable (Yellow).

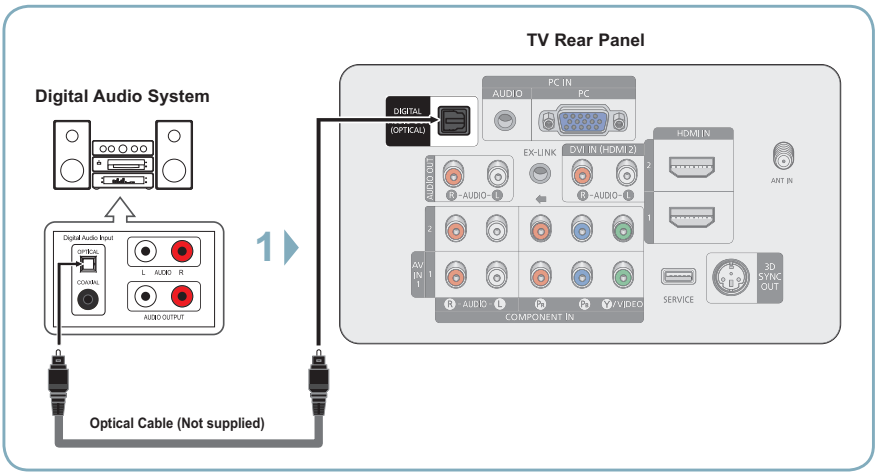
Connecting to S-Video



1. To begin, follow steps 1–3 in the previous section to connect the antenna or cable to your VCR and your TV.
2. Connect a S-Video cable between the [S-VIDEO] jack on the TV and the S-VIDEO OUT jack on the VCR.
3. Connect Audio cables between the AV IN 2 [R-AUDIO-L] jacks on the TV and the AUDIO OUT jacks on the VCR.
4. Press the **SOURCE** button on the remote control until you see the VCR signal (see “To Select the Source” on page 10).

- When connecting a VCR, match the color of the connection terminal to the cable.
- Each VCR has a different back panel configuration

Connecting a Digital Audio System



1 Connect an Optical Cable between the DIGITAL AUDIO OUT (OPTICAL) jacks on the TV and the Digital Audio Input (OPTICAL) jacks on the Digital Audio System.

When a Digital Audio System is connected to the DIGITAL AUDIO OUT (OPTICAL) terminal: Decrease the volume of the TV, and adjust the volume level with the system's volume control.

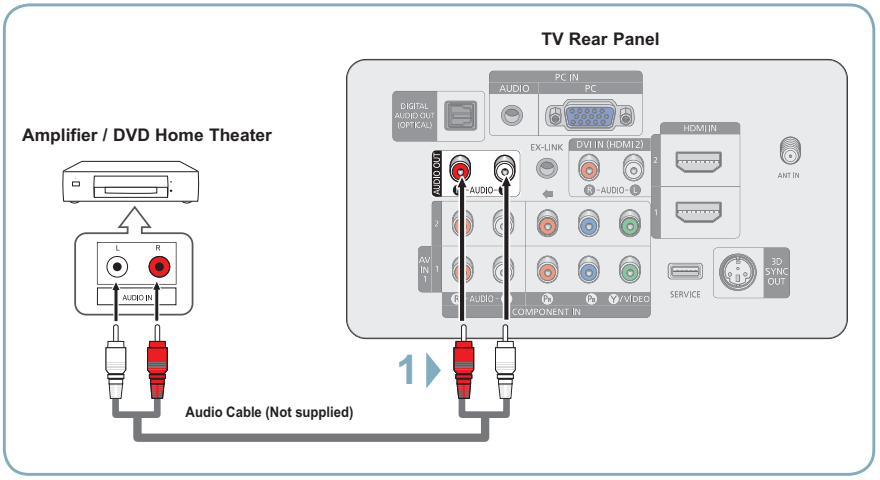
➢ What is OPTICAL?
• Converts the electric signal into an optical light signal, and transmits it through glass fibers. S/PDIF is a transmission system of digital audio in the form of a light wave that uses a glass conductor.

➢ 5.1CH audio is possible when the TV is connected to an external device supporting 5.1CH.

➢ Each external input source device has a different back panel configuration.

➢ When the COMPONENT IN or HDMI IN jacks are connected, the Optical jack on the TV outputs 2 channel audio only. If you want to hear 5.1 channel audio, connect the DIGITAL AUDIO OUT (OPTICAL) jack on the DVD player or Cable/Satellite Box directly to an Amplifier or Home Theater, not the TV.

Connecting an Analog Amplifier / DVD Home Theater



1 Connect Audio Cables between the AUDIO OUT [R-AUDIO-L] on the TV and AUDIO IN [L-AUDIO-R] on the Amplifier / DVD Home Theater.

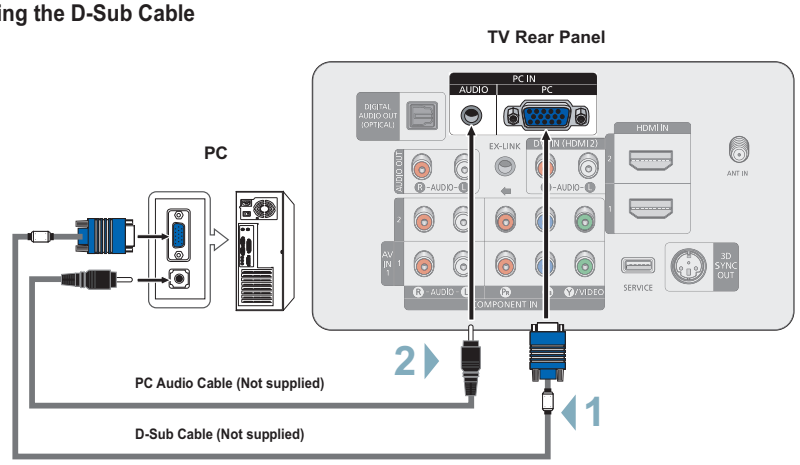
When an audio amplifier is connected to the AUDIO OUT [R-AUDIO-L] jacks terminals: Decrease the volume of the TV, and adjust the volume level with the Amplifier's volume control.

➢ Each Amplifier / DVD Home Theater has a different back panel configuration.

➢ When connecting an Amplifier / DVD Home Theater, match the color of the connection terminal to the cable.

Connecting a PC

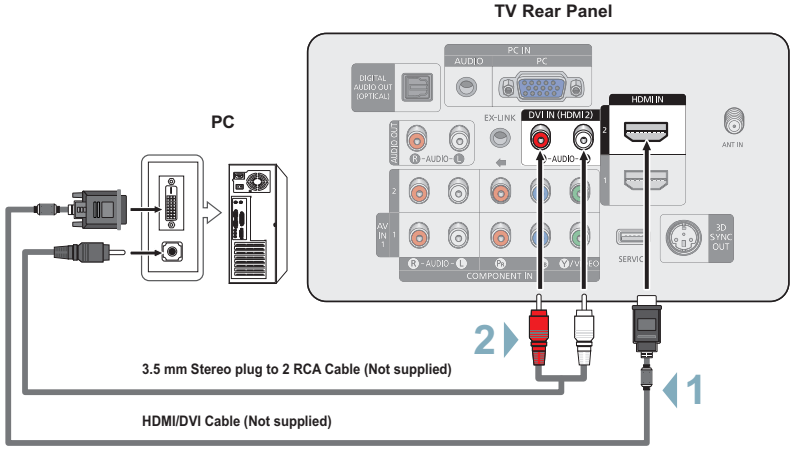
Using the D-Sub Cable



Using the D-Sub Cable

1. Connect a D-Sub Cable between PC IN [PC] jack on the TV and the PC output jack on your computer.
2. Connect a PC Audio Cable between PC IN [AUDIO] jack on the TV and the Audio Out jack of the sound card on your computer.
3. Press the **SOURCE** button on the remote control until you see the PC signal (see “To Select the Source” on page 10)

Using the HDMI/DVI Cable



Using the HDMI/DVI Cable

1. Connect a HDMI/DVI cable between the HDMI IN 2 jack on the TV and the PC output jack on your computer.
2. Connect a 3.5mm Stereo/2RCA Cable cable between the DVI IN (HDMI IN 2) [R-AUDIO-L] jack on the TV and the Audio Out jack of the sound card on your computer.
3. Press the **SOURCE** button on the remote control until you see the PC signal (see To Select the Source” on page 10)

- Each PC has a different back panel configuration.
- When connecting a PC, match the color of the connection terminal to the cable.
- When using an HDMI/DVI cable connection, you must use the HDMI IN 2 terminal.

Turning the TV On and Off

Press the **POWER** button on the remote control.
You can also use the **POWER** button on the TV.

➢ It may take a while before you see a full picture.

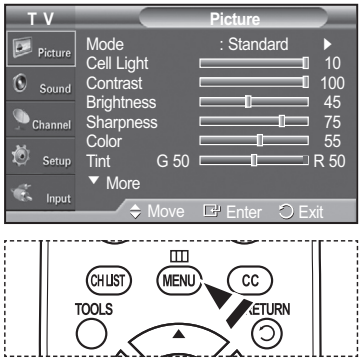
Viewing the Menus

1. With the power on, press the **MENU** button.
The main menu appears on the screen. Its left side has five icons:
Picture, **Sound**, **Channel**, **Setup**, **Input**.

2. Press the ▲ or ▼ button to select one of the icons. Then press the **ENTER** button to access the icon's sub-menu.

3. Press the **EXIT** button to exit.

➢ It takes about one minute until the on-screen menu disappears.



Memorizing the Channels

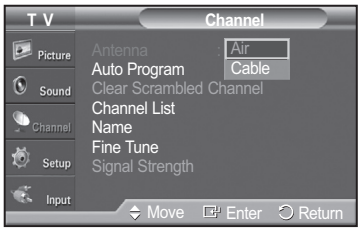
Your TV can memorize and store all of the available channels for both "off-air" (air) and cable channels. After the available channels are memorized, use the CH ⌃ or CH ⌄ button to scan through the channels. This eliminates the need to change channels by entering the channel digits. There are three steps for memorizing channels: selecting a broadcast source, memorizing the channels (automatic) and adding and deleting channels (Channel Lists).

Selecting the Video Signal-source

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e. an Air or a Cable system).

1. Press the **MENU** button.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

2. Press the **ENTER** button to select **Antenna**.
Press the ▲ or ▼ button to select **Air** or **Cable**, then press the **ENTER** button.
Press the **EXIT** button to exit.

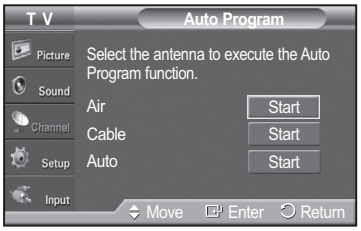


Storing Channels in Memory (Automatic Method)

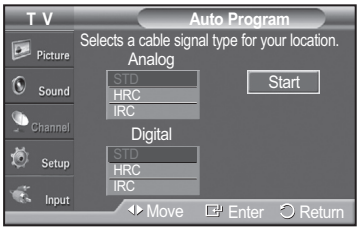
1. Press the **MENU** button to display the menu.
Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

2. Press the ▲ or ▼ button to select Auto Program, then press the **ENTER** button.

- **Air**: Air antenna signal.
- **Cable**: Cable antenna signal.
- **Auto**: Air and Cable antenna signals.

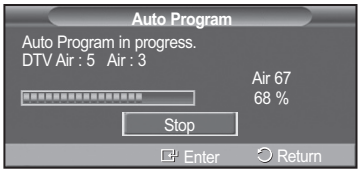


3. Press the ▲ or ▼ button to select the antenna connection, then press the **ENTER** button.



4 When selecting the Cable TV system:
Press the **ENTER** button to start the auto program. Press the ▲ or ▼ to select the correct analog signal cable system source from among STD, HRC, and IRC, then press the **ENTER** button. If you have Digital cable TV, select the cable system signal source for both Analog and Digital.

- STD, HRC, and IRC identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area. At this point the signal source has been selected.



5 The TV begins memorizing all available stations.

- If you want to stop Auto Programming, press the **ENTER** button. The **Would you like to stop the auto channel.** message will be displayed. Select **Yes** by pressing the ◄ or ► button.

Press the **EXIT** button to exit.

Viewing the Channel Lists

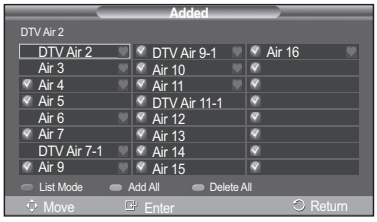
You can display a list of all channels, added channels or your favorite channels.

1 Press the **MENU** button to display the menu. Press the ▲ or ▼ button to select **Channel**, then press the **ENTER** button.

2 Press the ▲ or ▼ button to select **Channel List**, then press the **ENTER** button.

3 Press the ▲ or ▼ button to select All, Added or Favorite, then press the ENTER button.
To toggle between your all channels, add channels, or favorite channels, use the red button on the remote control.

- **Red button:** Press repeatedly to select All, Added, or Favorite.
- **Green button:** Press to add all channels deleted.
- **Yellow button:** Press to delete all channels memorized.



Picture Control

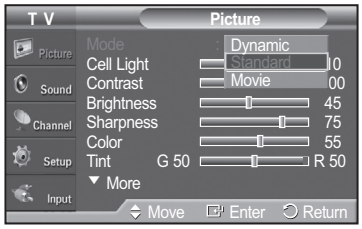
Changing the Picture Standard

You can select the type of picture which best corresponds to your viewing requirements.

1 Press the **MENU** button to display the menu.
Press the **ENTER** button to select **Picture**.

2 Press the **ENTER** button to select **Mode**.
Press the ▲ or ▼ button to select **Dynamic**, **Standard**, or **Movie.**
Press the **ENTER** button.

- **Dynamic**: Select the picture for high-definition in a bright room.
- **Standard**: Select the picture for the optimum display in a normal environment.
- **Movie**: Select the picture for viewing movies in a dark room.



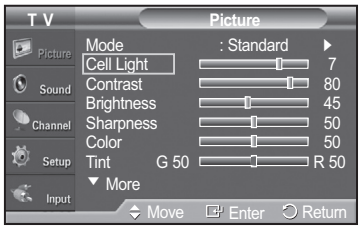
Customizing the Picture Settings

Your television has several setting options that allow you to control the picture quality.

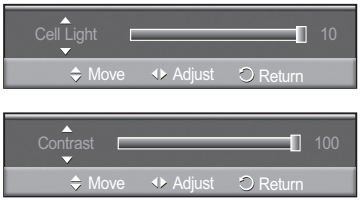
1 To select the desired picture mode, follow the "Changing the Picture Standard" instructions number 1 to 2.

2 Press the ▲ or ▼ button to select **Cell Light**, **Contrast**, **Brightness**, **Sharpness**, **Color**, or **Tint**, then press the **ENTER** button.

- **Cell Light**: Selects the brightness of PDP Cell Light.
- **Contrast**: Adjusts the contrast level of the picture.
- **Brightness**: Adjusts the brightness level of the picture.
- **Sharpness**: Adjusts the edge definition of the picture.
- **Color**: Adjusts color saturation of the picture.
- **Tint**: Adjusts the color tint of the picture by compensating the red and green color.



3 Press the ◄ or ► button to decrease or increase the value of a particular item. Press the **ENTER** button.
Press the **EXIT** button to exit.



➢ When you make changes to Cell Light, Contrast, Brightness, Sharpness, Color, or Tint(G/R) the OSD will be adjusted accordingly.

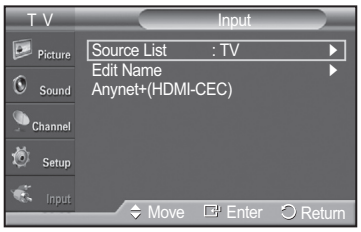
➢ When in PC mode, Tint(G/R), Sharpness and Color are not available.

➢ Each adjusted setting will be stored separately according to its input mode.

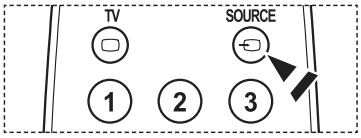
To Select the Source

Use to select TV or other external input sources such as DVD players or Set-top/Cable boxes connected to the TV.
Use to select the input source of your choice.

1 Press the **MENU** button.
Press the ▲ or ▼ button to select **Input**, then press the **ENTER** button.



2 Press the **ENTER** button again to select **Source List**. Press the ▲ or ▼ button to select signal source, then press the **ENTER** button.



➢ Available signal sources: **TV**,**AV1**, **AV2**, **S-Video**, **Component1**, **Component2**, **PC**, **HDMI1**, **HDMI2**, **HDMI3**.

➢ You can choose only those external devices that are connected to the TV.

Troubleshooting

If the TV seems to have a problem, first try this list of possible problems and solutions.
If none of these troubleshooting tips apply, call your nearest Samsung service center.

Problem	Possible Solution
Poor picture quality.	- Try another channel. - Adjust the antenna. - Check all wire connections.
Poor sound quality.	- Try another channel. - Adjust the antenna.
No picture or sound.	- Try another channel. - Press the **SOURCE** button. - Make sure the TV is plugged in. - Check the antenna connections. - Make sure the **MUTE** button is off.
No sound or sound is too low at maximum volume.	First, check the volume of units connected to your TV (digital broadcasting receiver, DVD, cable broadcasting receiver, VCR, etc.). Then, adjust the TV volume accordingly.
Picture rolls vertically.	Check all connections.
The TV operates erratically.	Unplug the TV for 30 seconds, then try operating it again.
The TV won't turn on.	Make sure the wall outlet is working.
Remote control malfunctions	- Replace the remote control batteries. - Clean the upper edge of the remote control(transmission window). - Check the battery terminals. - Make sure the remote has batteries. - Check that the "+" and "-" ends of the batteries are inserted correctly.
Digital broadcasting screen problem.	Please check the digital signal strength and input antenna.
The image is too light or too dark.	- Adjust the Brightness and Contrast. - Adjust the Fine tuning.
The image is too large or too small.	Adjust the Size settings.
The visual qualities of digital channels vary.	The visual qualities of digital channels may vary depending on the original production method(analog or digital). - If the original production method is digital: High visual quality. - If the original production method is analog: The digital program displayed on the screen is originally an analog program which has been converted to digital. The visual quality is of an SD(Standard Definition) grade.
Screen is black and power indicator light blinks steadily.	On your computer check; Power and Signal Cable. The TV is using its power management system. Move the computer's mouse or press any key on the keyboard.
	On your equipment check (STB, DVD, etc) ; Power and Signal Cable. The TV is using its power management system. Press the Source button on the panel or remote control. Turn the TV off and on.
Although the TV caption shows HD, the visual quality is not satisfactory.	The HD(High Definition) caption that appears when switching channels or when pressing the Information button on the remote control means the selected channel is a digital channel. If the broadcasting station converts an analog signal into digital and transmits the signal, the visual quality may not be perfect.
A distorted picture appears in the corner of the screen.	If **Just Scan** is selected in some external devices, a distorted picture may appear in the corner of the screen. This symptom is caused by external devices, not the TV.
A Strange sound is heard.	This is caused by minor systems operation and is not a defect.
The "Resets all settings to the default values" message appears.	This appears when you press and hold the **EXIT** button for a while. The product settings are reset to the factory defaults.

➢ This Plasma panel uses a panel consisting of sub pixels (2,359,296 (42inch)/3,147,264 (50inch)) which require sophisticated technology to produce. However, there may be few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.

Contact SAMSUNG WORLD-WIDE
If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

Country	Customer Care Center ☎	Web Site	Address
CANADA	1-800-SAMSUNG (7267864)	www.samsung.com/ca	Samsung Electronics Canada Inc., Customer Service 55 Standish Court Mississauga, Ontario L5R 4B2 Canada
			Samsung Electronique Canada Inc., Service à la Clientèle 55 Standish Court Mississauga, Ontario L5R 4B2 Canada
U.S.A	1-800-SAMSUNG (7267864)	www.samsung.com	Samsung Electronics America, Inc. 105 Challenger Road Ridgefield Park, NJ 07660-0511

BN68-01363B-00

(U.S.A. Only) Digital Television Transition Notice:

This device contains a digital television tuner, so it should receive digital over the air TV programming, with a suitable antenna, after the end of fullpower analog TV broadcasting in the United States on February 17, 2009.

Some older television receivers, if they rely on a TV antenna, will need a TV Converter to receive over the air digital programming, but should continue to work as before for other purposes (e.g., for watching lowpower TV stations still broadcasting in analog, watching pre-recorded movies, or playing video games).

When a Converter is used with an older television receiver, a signal splitter might be necessary to continue to receive low-power analog broadcasts via an antenna. For more information, please see www.DTV.gov or call 1-888-CALL-FCC.

For information on the TV Converter program, and on government coupons that may be used toward the purchase of one, see www.dtv2009.gov, or call the NTIA at 1-888-DTV-2009.

BN68-01600A-01

SAMSUNG

AA68-03242L-02

Warning! Important Safety Instructions

(Please read the appropriate section that corresponds to the marking on your Samsung product before attempting to install the product.)

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED PERSONNEL.

This symbol indicates that high voltage is present inside. It is dangerous to make any kind of contact with any internal part of this product.

This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

- The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of this apparatus, and to protect it from overheating, these slots and openings must never be blocked or covered.
  - Do not cover the slots and openings with a cloth or other materials.
  - Do not block the slots and openings by placing this apparatus on a bed, sofa, rug or other similar surface.
  - Do not place this apparatus in a confined space, such as a bookcase, or built-in cabinet, unless proper ventilation is provided.
  - Install the product keeping the specified distance from the wall (see the information below.)
    * DLP TVs, Direct View Type TVs, and Projectors → 10cm
    * Products with 32" or larger display s → 5cm
    * Other products → 4cm
- Do not place this apparatus near or over a radiator or heat resistor, or where it is exposed to direct sunlight.
- Do not place a water containing vessel on this apparatus, as this can result in a risk of fire or electric shock.
- Do not expose this apparatus to rain or place it near water (near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool etc.). If this appratus accidentally gets wet, unplug it and contact an authorized dealer immediately. Make sure to pull out the power cord from the outlet before cleaning.
- This appratus use batteries. In your community there might be regulations that require you to dispose of these batteries properly under environmental considerations. Please contact your local authorities for disposal or recycling information.
- Do not overload wall outlets, extension cords or adaptors beyond their capacity, since this can result in fire or electric shock.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plug end, adaptors and the point where they exit from the appliance.
- To protect this apparatus from a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the set due to lightning and power line surges.
- Before connecting the AC power cord to the DC adaptor outlet, make sure the voltage designation of the DC adaptor corrsponds to the local electrical supply.
- Never insert anything metallic into the open parts of this apparatus. Doing so many create a danger of electric shock.
- To avoid electric shock, never touch the inside of this apparatus. Only a qualified technician should open this apparatus.
- Make sure to plug the power cord in until it is firmly inserted. When removing the power cord, make sure to hold the power plug when pulling the plug from the outlet. Do not touch the power cord with wet hands.
- If this appratus does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service center.
- Be sure to pull the power plug out of the outlet if the TV is to remain unused or if you are to leave the house for an extended period of time (especially when children, elderly or disabled people will be left alone in the house).
  - Accumulated dust can cause an electric shock, an electric leakage or a fire by causing the power cord to generate sparks and heat or the insulation to deteriorate.
- Be sure to contact an authorized service center, when installing your set in a location with heavy dust, high or low temperatures, high humidity, chemical substances and where it operates for 24 hours such as the airport, the train station etc. Failure to do so may cause serious damage to your set.
- Use only a properly grounded plug and receptacle.
  - An improper ground may cause electric shock or equipment damage. (Class l Equipment only.)
- To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.
- Do not allow children to hang onto the product.
- Store the accessories (battery, etc.) in a location safely out of the reach of children.
- Do not install the product in an unstable location such as a shaky self, a slanted floor or a location exposed to vibration.
- Do not drop or impart any shock to the product. If the product is damaged, disconnect the power cord and contact a service center.
- Unplug the power cord from the power outlet and wipe the product using a soft, dry cloth. Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air freshener, lubricant or detergent. This may damage the appearance or erase the printing on the product.

WARNING - TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES OR OTHER OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.

Avertissement! Consignes de sécurité importantes

(Avant toute installation de votre prod uit Samsung,
veuillez lire les sections correspondant aux inscriptions qui figurent sur ce de rnier.)

ATTENTION

RISQUE D'ELECTROCUTION NE PAS OUVRIR

ATTENTION: POUR REDUIRE LES RISQUES D'ELECTROCUTION, NE RETIREZ PAS LE CAPOT (NI LE PANNEAU ARRIERE). A L'INTERIEUR DE L'APPAREIL, AUCUNE PIECE NE PEUT ETRE REPAREE PAR L'UTILISATEUR. POUR TOUT DEPANNAGE, ADRESSEZ-VOUS A UN SPECIALISTE.

Ce symbole indique qu'une tension élevée est présente à l'intérieur de l'appareil. Tout contact avec une pièce située à l'intérieur de cet appareil est dangereux.

Ce symbole vous prévient qu'une documentation importante relative au fonctionnement et à l'entretien est fournie avec le produit.

- Les fentes et les ouvertures ménagées dans le boîtier ainsi qu'à l'arrière et au-dessous de l'appareil assurent la ventilation de ce dernier. Afin de garantir le bon fonctionnement de l'appareil et éviter les risques de surchauffe, ces fentes et ouvertures ne doivent être ni obstruées ni couvertes.
  - Ne couvrez pas les fentes et les ouvertures avec un morceau de tissu ou tout autre objet.
  - Ne les obstruez pas non plus en plaçant l'appareil sur un lit, un canapé, un tapis ou toute autre surface apparentée.
  - Ne placez pas l'appareil dans un environnement clos tel qu'une bibliothèque ou une armoire encastrée, sauf si une ventilation adéquate est prévue.
  - Installez le produit en maintenant une distance correcte avec le mur (voir informations ci-dessous).
    * Téléviseurs DLP, téléviseurs de type Direct View et projecteurs → 10 cm
    * Appareils dotés d'un écran 32" ou plus → 5 cm
    * Autres produits → 4 cm
- Ne placez pas l'appareil à proximité ou au-dessus d'un radiateur ou d'une bouche d'air chaud, de même que dans un endroit exposé à la lumière directe du soleil.
- Ne placez aucun récipient d'eau sur l'appareil car cela représente un risque d'incendie ou de décharge électrique.
- N'exposez pas l'appareil à la pluie et ne le placez pas à proximité d'une source d'eau, par exemple une baignoire, un lavabo, un évier, un bac de lavage, un sous-sol humide, une piscine, etc. Si l'app areil vient à être mouillé par accident, débranchez-le et contactez immédiatement un revendeur agréé. Assurez-vous que le cordon d'alimentation est débranché avant de nettoyer le produit.
- Cet appareil peut fonctionner sur piles. Dans un souci de préservation de l'environnement, la réglementation locale prévoit peut-être des mesures spécifiques de récupération des piles usagées.Veuillez donc contacter les autorités compétentes afin d'obtenir des informations sur la mise au rebut ou le recyclage des piles.
- Evitez de surcharger les prises murales, les rallonges et les prises mult iples car cela entraîne un risque d'incendie ou de décharge électrique.
- Les cordons d'alimentation doivent être déroulés de sorte qu'aucun objet placé sur ou contre eux ne les chevauche ou les pince. Accordez une attention particulière aux cordons au niveau des fiches, des prises et de la sortie de l'appareil.
- En cas d'orage, ou bien lorsque vous vous absentez ou n'utilisez pas votre appareil pendant une longue période, débranchez celui-ci de la prise murale et débranchez également le câble d'antenne ou le cordon de connexion au réseau câblé. Ces précautions éviteront que l'appareil ne soit endommagé par la foudre ou par des surtensions.
- Avant de raccorder le cordon d'alimentation CA à la prise de l'adaptateur CC, vérifiez que la tension indiquée sur ce dernier correspond bien à la tension délivrée par le réseau électrique local.
- N'insérez aucun objet métallique dans les ouvertures de l'appareil. vous risqueriez de recevoir une décharge électrique.
- Afin d'éviter tout risque d'électrocution, ne mettez jamais les doigts à l'intérieur de l'appareil. Seul un technicien qualifié est habilité à ouvrir le boîtier de l'appareil.
- Assurez-vous de bien brancher le cordon d'alimentation. Assurez-vous de bien tenir la prise en main lorsque vous la débranchez. Ne touchez en aucune circonstance le cordon d'alimentation avec les mains mouillées.
- Si l'appareil ne fonction ne pas normalement, en particulier s'il émet des odeurs oudes sons anormaux, débranchez-le immédiatement et contactez un revendeur ou un centre de dépannage agréé.
- Veillez à bien débrancher le cordon d'alimentation si la télévision doit restée inutilisée, ou lorsque vous quittez votre domicile, pendant une période assez longue (et plus spécialement si des enfants, des personnes âgées ou des majeurs incapables doivent rester seul à votre domicile).
  - L'accumulation de poussières peut provoquer une électrocution, une perte d'énergie, ou un incendie induit par le cordon d'alimentation, dû à des variations de tension, une surchauffe ou une détérioration de l'isolation.
- Veillez à contacter un centre de services homologué lorsque vous installez votre téléviseur dans un endroit très poussiéreux, humide, exposé à des températures élevées ou faibles ou à des produits chimiques, ou s'il fonctionne sans interruption, par exemple dans les aéroports, les gares, etc. Si vous ne le faites pas, vous risquez d'endommager gravement votre téléviseur.
- Utiliser uniquement des prises correctement reliées à la terre.
  -Un sol inadapté peut causer un choc électrique ou un incendie. (Appareils de CLASSE I uniquement.)
- Pour déconnecter l'appareil du secteur, la prise doit être débranchée de la prise électrique du secteur. Par conséquent, la prise du secteur doit être en état de marche.
- Utiliser uniquement des prises correctement reliées à la terre.
- Rangez les accessoires (batterie, etc.) dans un endroit sûr, hors de la portée des enfants.
- N'installez pas le produit sur une surface instable telle qu'une étagère chancelante, un sol non horizontal ou un endroit soumis à des vibrations.
- Ne faites ni tomber, ni subir de choc au produit. Si le produit est endommagé, déconnectez le cordon d'alimentation et contactez un centre de services.
- Débranchez le cordon d'alimentation de la prise secteur et essuyez le produit à l'aide d'un chiffon doux et sec. N'utilisez pas de produit chimique, tels que de la cire, du benzène, de l'alcool, du diluant, de l'insecticide, du désodorisant, du lubrifiant ou du détergent. Cela peut endommager l'aspect ou effacer l'impression sur l'appareil.

AVERTISSEMENT - POUR ÉVITER TOUT RISQUE D'INCENDIE, VEILLEZ À GARDER CE PRODUIT LOIN DE BOUGIES OU D'AUTRES SOURCES DE FEU.

Advertencia! Instrucciones importantes de seguridad

(Lea la sección apropiada que corresponde a la
marca del producto Samsung antes de intentar instalar el producto.)

PRECAUCIÓN

PELIGRO DE DESCARGA ELÉCTRICA NO ABRIR

PRECAUCIÓN: PARA REDUCIR EL PELIGRO DE DESCARGA ELÉCTRICA, NO RETIRE LA CUBIERTA. NO HAY PIEZAS EN EL INTERIOR QUE PUEDA REPARAR EL USUARIO.
CONSULTE AL PERSONAL CUALIFICADO DE SERVICIO TÉCNICO.

Este símbolo indica la presencia de alto voltaje en el interior. Es peligroso entrar en contacto con cualquier pieza interior de este producto.

Este símbolo le alerta de que con este producto se incluye documentación importante correspondiente al funcionamiento y mantenimiento.

- Las ranuras y aberturas existentes en la unidad y en la parte trasera o inferior se facilitan para proporcionar la ventilación necesaria. Para garantizar el funcionamiento fiable de este aparato, y para protegerlo frente a sobrecalentamiento, estas ranuras y aberturas nunca deben bloquearse ni cubrirse.
  - No cubra las ranuras y aberturas con un paño o con cualquier otro material.
  - No bloquee las ranuras ni aberturas colocando este aparato sobre la cama, sofá, alfombra o superficie similar.
  - No coloque este aparato en un espacio cerrado, como una librería, o un armario empotrado, a menos que se proporcione una ventilación correcta.
  - Instale el producto conservando la distancia especificada respecto a la pared (vea la información siguiente).
    * Televisores DLP, televisores tipo visualización directa y proyectores → 10 cm
    * Aparatos con una pantalla de 32" o mayor → 5 cm
    * Otros productos → 4 cm
- No coloque este aparato cerca o sobre un radiador o una rejilla de aire caliente, o en lugares expuestos a luz solar directa.
- No coloque recipientes con agua sobre este aparato, ya que podría representar riesgo de incendio o descarga eléctrica.
- No exponga este aparato a la lluvia ni lo coloque cerca de agua (cerca de una bañera, lavabo, fregadero o lavadero, en un sótano húmedo ni cerca de una piscina o similar). Si este aparato accidentalmente se moja, desenchúfelo y póngase en contacto inmediatamente con un autorizado. Antes de limpiar el producto desconecte el cable de alimentación de la toma de corriente.
- Este aparato utiliza baterías. En su comunidad puede que existan normativas que requieran la disposición de estas baterías de forma adecuada bajo consideraciones ambientales.
  Póngase en contacto con las autoridades locales para obtener información sobre desecho y reciclaje.
- No sobrecargue las tomas murales, los alargadores ni los receptáculos correspondientes por encima de su capacidad, ya que esto puede generar incendios o descargas eléctricas.
- Los cables de alimentación y protección deben colocarse de forma que no puedan pisarse ni quedar atrapados por objetos encima o contra ellos, poniendo especial atención en los cables cerca del enchufe, los receptáculos de los electrodomésticos y el punto en el que salen del aparato.
- Para proteger este aparato durante una tormenta eléctrica o cuando no lo utilice durante largos periodos de tiempo, desenchúfelo de la toma de la pared y desconecte la antena o el cable del sistema. Esto evitará que el equipo se dañe por rayos o picos de tensión de la línea eléctrica.
- Antes de conectar el cable de alimentación de CA a la toma del adaptador de CC, asegúrese de que la designación del voltaje del adaptador de CC corresponde a la fuente eléctrica local.
- Nunca inserte nada metálico en las aberturas del aparato. Hacerlo así puede crear peligros de descarga eléctrica.
- Para evitar descarga eléctrica, no toque nunca el interior de este aparato. Sólo un técnico cualificado debe abrir el alojamiento del aparato.
- Cuando conecte el cable de alimentación compruebe que el enchufe esté firmemente insertado. Para desenchufar el cable de alimentación, sujételo por el enchufe y tire de éste para sacarlo de la toma de corriente. Nunca toque el cable de alimentación con las manos mojadas.
- Si este aparato no funciona normalmente, en concreto, si emite sonidos extraños o desprende olores desde el interior, desenchúfelo inmediatamente y póngase en contacto con el distribuidor autorizado o el centro de servicio técnico.
- Asegúrese de desconectar el enchufe de alimentación de la toma de corriente si la TV ha dejado de utilizarse, o desea salir de casa, durante un largo periodo de tiempo (especialmente cuando sea necesario dejar solos en casa a niños, ancianos o personas incapacitadas).
  - El polvo acumulado puede provocar una descarga eléctrica, un cortocircuito o un fuego, haciendo que el cable eléctrico genere chispas y calor, o deteriorando la funda protectora.
- Póngase en contacto con un centro de servicio técnico autorizado cuando instale el aparato en un lugar expuesto a gran cantidad de polvo, temperaturas extremas, alto nivel de humedad y productos químicos, y en lugares donde se vaya a utilizar las 24 horas del día, como aeropuertos, estaciones, etc. El incumplimiento de estas indicaciones puede causar serios desperfectos en el aparato.
- Cuando instale el equipo, procure guardar una distancia de más de 10 cm desde la pared para facilitar la ventilación.
- Use sólamente conectores y receptáculos apropiados para hacer la conexión a tierra.
  -Una conexión a tierra inapropiada podría causar una descarga eléctrica o una avería en el equipo. (Sólo equipo de Clase I.)
- Para desconectar el aparato de la corriente, debe desenchufar el cable de la toma principal, por lo que el enchufe principal debe estar siempre fácilmente accesible.
- No permita que los niños jueguen con el producto.
- Guarde los accesorios (pilas, etc.) en un lugar seguro fuera del alcance de los niños.
- No coloque el producto en un lugar inestable, inclinado o expuesto a vibraciones.
- No lo deje caer ni le dé golpes. Si el producto se estropea, desenchufe el cable de alimentación y póngase en contacto con un centro de servicio.
- Desconecte el cable de alimentación de la toma de corriente y seque el aparato con un paño suave y seco. No utilice ningún producto químico como cera, benzol, alcohol, disolventes, insecticida, ambientador de aire, lubricante o detergente. Se puede dañar el aspecto o borrar las estampaciones del producto.

ADVERTENCIA - PARA IMPEDIR QUE EL FUEGO SE PROPAGUE, MANTENGA LAS VELAS U OTRAS LLAMAS EXPUESTAS SIEMPRE ALEJADAS DE ESTE PRODUCTO.

Aviso! Instruções de segurança importantes

(Leia a secção adequada que corresponde
à marca no produto Samsung antes de tentar instalar o produto.)

ATENÇÃO

STROMSCHLAGGEFAHR NICHT ÖFFNEN

CUIDADO:PARA REDUZIR O RISCO DE CHOQUE ELÉCTRICO, NÃO RETIRE A TAMPA (NEM A PARTE TRASEIRA). NO INTERIOR DO TELEVISOR NÃO EXISTEM PEÇAS QUE POSSAM SER REPARADAS PELOUTILIZADOR. A ASSISTÊNCIA SÓ PODE SER EFECTUADA POR TÉCNICOS QUALIFICADOS.

Este símbolo indica a existência de alta tensão no interior do televisor. É perigoso tocar em qualquer parte no interior do produto.

Este símbolo informa-o de que este produto inclui literaturaimportante sobre o respectivo funcionamento e manutenção.

- As ranhuras e aberturas na caixa e na parte posterior ou inferior permitem a ventilação necessária. Para garantir o funcionamento correcto do aparelho e para o proteger do sobreaquecimento, nunca deve bloquear ou tapar estas ranhuras e aberturas.
  - Não tape as ranhuras e aberturas com panos ou outros materiais.
  - Não bloqueie as ranhuras e aberturas colocando o aparelho numa cama, sofá, tapete ou outra superfície semelhante.
  - Não coloque este aparelho num espaço fechado, como uma estante ou um armário embutido, a menos que tenha ventilação adequada.
  - Instale o produto, mantendo a distância da parede especificada (consulte as informações abaixo.)
    * Televisores DLP, Televisores do Tipo Direct View e Projectores → 10 cm
    * Produtos com visores de 32 polegadas ou maiores → 5 cm
    * Outros produtos → 4 cm
- Não coloque este aparelho perto ou por cima de um radiador, sistema de aquecimento ou num local em que esteja exposto à incidência directa dos raios solares.
- Não coloque recipientes com água em cima do aparelho, porque pode provocar um incêndio ou choque eléctrico.
- Não exponha o aparelho à chuva nem coloque em locais perto de água (perto de uma banheira, lavatório, lava-loiça, tubo da máquina de lavar a loiça, piscina ou numa cave com humidade). Se molhar acidentalmente o aparelho, desligue-o da ficha e contacte de imediato o revendedor autorizado. Retire sempre o cabo de alimentação da tomada antes de limpar o produto.
- Este aparelho tem pilhas. Deite fora as pilhas adequadamente de acordo com as considerações ambientais existentes no seu país. Contacte as autoridades locais para obter informações sobre a destruição ou reciclagem de pilhas.
- Não sobrecarregue tomadas de parede, extensões nem receptáculos, porque pode provocar um incêndio ou choque eléctrico.
- Deve colocar os cabos de alimentação de forma a não serem pisados nem entalados por objectos, tendo em especial atenção os cabos ligados a fichas, a receptáculos e ao ponto de onde os cabos saem do aparelho.
- Para proteger o aparelho de trovoadas, ou quando não for utilizá-lo durante longos períodos de tempo, desligue o aparelho da tomada de parede e desligue a antena ou o sistema de televisão por cabo.
  Deste modo, o aparelho não sofre eventuais danos provocados por raios e descargas em cabos de alta tensão.
- Antes de ligar o cabo de alimentação de CA à tomada do transformador de CC, certifique-se de que a designação de tensão do transformador de CC corresponde à alimentação eléctrica local.
- Nunca introduza objectos metálicos nas aberturas do aparelho. Se o fizer, pode provocar choques eléctricos.
- Para evitar choques eléctricos, nunca toque no interior do aparelho. A caixa do aparelho só deve ser aberta por técnicos qualificados.
- Introduza o cabo de alimentação completamente até ao fim. Quando retirar o cabo de alimentação, certifique-se de que o segura pela ficha quando puxar a mesma da tomada. Não toque no cabo de alimentação com as mãos molhadas.
- Se o aparelho não funcionar normalmente - em particular, se o aparelho emitir ruídos ou cheiros invulgares – desligue o aparelho de imediato e contacte o revendedor autorizado ou centro de assistência técnica.
- Certifique-se de que retira a ficha de alimentação da tomada se o aparelho de televisão não for utilizado ou se o utilizador não estiver em casa durante um período de tempo longo (especialmente quando crianças, idosos ou pessoas com deficiências forem deixadas sozinhas em casa).
  - Poeira acumulada pode provocar um choque eléctrico, uma fuga eléctrica ou um incêndio, fazendo com que o fio de alimentação produza faíscas e aqueça ou deteriore o isolamento.
- Contacte um centro autorizado de assistência técnica quando instalar o produto em locais sujeitos a poeiras excessivas, locais sujeitos a temperaturas altas ou baixas, locais com muita humidade, locais onde se utilizem substâncias químicas e locais onde o monitor esteja a funcionar 24 horas por dia como em aeroportos, estações de comboio, etc. Se não o fizer, pode provocar sérios danos no produto.
- Utilize uma ficha e uma tomada devidamente ligadas à terra.
  -Uma ligação de terra deficiente pode causar choque eléctrico ou danos no equipamento. (Só equipamento de classe 1.)
- Deve puxar a ficha da tomada para desligar o aparelho da corrente, de forma a deixar a ficha pronta a ser utilizada.
- Não deixe as crianças mexer no produto.
- Guarde os acessórios (bateria, etc.) num local seguro fora do alcance das crianças.
- Não instale o produto num local instável, como uma prateleira inclinada, um chão desnivelado ou um local exposto à vibração.
- Não deixe cair ou provoque qualquer embate no produto. Se o produto estiver danificado, desligue o cabo de alimentação e contacte um centro de assistência.
- Desligue o cabo de alimentação da tomada e utilize um pano seco e macio para limpar o produto. Não utilize quaisquer produtos químicos como cera, benzina, álcool, diluentes, insecticida, ambientador, lubrificante ou detergente. Tal pode danificar o aspecto do produto ou eliminar a impressão do mesmo.

AVISO - PARA EVITAR O ALASTRAR DE UM INCÊNDIO, MANTENHA SEMPRE AS VELAS OU OUTRO TIPO DE CHAMA LONGE DESTE PRODUTO.

Regulatory Compliance Statements

Your Samsung product is marked to indicate its compliance class

- Federal Communications Commission (FCC) - USA
- Industry Canada Equipment Standard for Digital Equipment (ICES-003) - Canada
- Voluntary Control Council for Interference (VCCI) - Japan
- Bureau of Standards Metrology and Inspection (BSMI) - Taiwan
- Ministry of Information and Communication (MIC) - Republic of Korea
- Italian Post Ministry (Homologation) - Italy

FCC Class A Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

NOTE:
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Class B Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

User Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If necessary, consult with your dealer or an experienced radio/television technician for additiona suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful.
This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office. Washington, DC 20402, Stock Number 004-000-00345-4.

The party responsible for product compliance:

SAMSUNG ELECTRONICS CO., LTD.
America QA Lab of Samsung
3351 Michelson Drive
Suite #290, Irvine, CA92612 USA

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product.
Provided with this monitor is a detachable power supply cord with IEC320 style terminations.
It may be suitable for connection to any UL Listed personal computer with similar configuration.
Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal or exceeds the monitor voltage rating.
For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type(parallel blades) plug cap. For 240 Volt applications use only UL Listed detachable power supply cord with NEMA configuration 6-15P type (tandem blades) plug cap.
This television receiver provides display of television closed captioning in accordance with Section 15.119 of the FCC rules. (TV broadcast receivers with picture screens 13 inches or larger in diameter models only)

ICES-003 Class A Notice - Avis NMB-003, Classe A

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

ICES-003 Class B Notice - Avis NMB-003, Classe B

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

VCCI Class A Notice

この装置は、情報処理装置等電波障害自主規制協議(VCCI)の基準に基づくクテスA情報技術装置です。
この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。
この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI Class B Notice

この装置は、情報処理装置等電波障害自主規制協議(VCCI)の基準に基づくクテスB情報技術装置です。
この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

BSMI Class A Notice

The following statement is applicable to products shipped to Taiwan and marked as Class A on the product compliance label.

警告使用者：
這是甲類資訊類產品，在居住環境中使用時，可能會造成射頻幹擾，在這種情況下，
使用者會被要求採取某些適當的對策。

European Notice(Europe Only)

Products with the CE marking comply with the EMC Directive(89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive(73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms:
- EN55022: Radio Frequency Interference
- EN55024: Electromagnetic Immunity of Information Technology Equipment
- EN61000-3-2: Power Line Harmonics
- EN61000-3-3: Voltage Fluctuations
- EN55013: Radio disturbance characteristics of broadcast receivers and associated equipments
- EN55020: Electromagnetic immunity of broadcast receivers and associated equipments

European Class A Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.(Class A product only)

정보통신기기 A급기기 (MIC Class A Notice)

MIC
이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의하시기 바라며 만약 잘못 판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

정보통신기기 B급기기 (MIC Class B Notice)

이 기기는 가정용으로 전자파적합등록을 한 기기로서 주거지역에서는 물론 모든지역에서 사용할 수 있습니다.

Italian Homologation Notice

Questo apparecchio e fabbricato in conformita al D.M.28.08.95 n.548
ed in particolare a quanto specificato nell Art.2, comma 1.
Questo apparecchio e fabbricato nella U.E. in conformita al D.M.28.08.95 n.548
Art.2, comma 1 ed al D.M.26.03.92 Art.1
-. For products produced in countries except European Community
Questo apparecchio e fabbricato in conformita al D.M.28.08.95 n.548
ed in particolare a quanto specificato nell Art.2, comma 1.
-. For products produced in European Community
Questo apparecchio e fabbricato nella U.E. in conformita al D.M.28.08.95 n.548
Art.2, comma 1 ed al D.M.26.03.92 Art.1

Important Safety Instructions(UL Only)

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings, Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING: To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

- ***Optional***

1. Do not place the apparatus in a rack or bookcase. Ensure that there is adequate ventilation and that you've followed that manufacturer's instructions for mounting. (For PDP or Projection TV apparatus)
2. If you place the apparatus in a rack or bookcase, ensure that there is adequate ventilation and that you've followed the manufacturer's instructions.

MPR II Compliance (MPR II applied model only)

This monitor complies with SWEDAC(MPR II) recommendations for reduced electric and magnetic fields.

- ***EPA applied model only***

As an ENERGY STAR Partner, Samsung has determined that this product or product models meets the ENERGY STAR guidelines for energy efficiency.

ENERGY STAR PARTNER

Mercury Statement (LCD Monitor, LCD TV, DLP Projection TV, Projector for USA only)

Contains Mercury, Dispose According to Local, State or Federal Laws

Warning(Canada and Europe)

Apparatus shall not be exposed to dripping or splashing.
Ne pas exposer cet appareil à l'humidité ni à l'eau.

SAMSUNG COLOR TELEVISION & PROJECTION TELEVISION

LIMITED WARRANTY TO ORIGINAL PURCHASER

This SAMSUNG brand product, as supplied and distributed by SAMSUNG and delivered new, in the original carton to the original consumer purchaser, is warranted by SAMSUNG against manufacturing defects in materials and workmanship for a limited warranty period of:

Color Television: One(1) Year Parts and Labor, except Two (2) Years Parts Warranty for Picture Tube (CRT)* only on Analog Color Televisions
Projection Television: One (1) Year Parts and Labor, including Picture Tubes (CRT)*
LCD TV: One (1) Year Parts and Labor, including Display Panels
Plasma Display: One (1) Year Parts and Labor, including Display Panels
DLP Projection TV: One (1) Year Parts and Labor, including Display Panels
DLP Projector: Two (2) Years Parts and Labor, excluding Lamp**
(*90 Days Parts and Labor for Commercial Use)
(180 Days after Purchasing and 600 Hours of Use Limited Warranty Period)**

This limited warranty begins on the original date of purchase, and is valid only on products purchased and used in the United States. To receive warranty service, the purchaser must contact SAMSUNG for problem determination and service procedures. Warranty service can only be performed by a SAMSUNG authorized service center. The original dated bill of sale must be presented upon request as proof of purchase to SAMSUNG or SAMSUNG's authorized service center.

SAMSUNG will repair or replace this product, at our option and at no charge as stipulated herein, with new or reconditioned parts or products if found to be defective during the limited warranty period specified above. All replaced parts and products become the property of SAMSUNG and must be returned to SAMSUNG. Replacement parts and products assume the remaining original warranty, or ninety (90) days, whichever is longer.

For 26" and larger televisions(for LCD TV, 32" and larger) and DLP projectors, in-home service will be provided during the warranty labor period subject to availability within the contiguous United States. In-home service is not available in all areas. To receive in-home service, the product must be unobstructed and accessible to service personnel. If during in-home service repair can not be completed, it may be necessary to remove, repair and return the product. If in-home service is unavailable, SAMSUNG may elect, at our option, to provide for transportation of our choice to and from a SAMSUNG authorized service center. Otherwise, and for 25" and smaller televisions, transportation to and from the SAMSUNG authorized service center is the responsibility of the purchaser.

This limited warranty covers manufacturing defects in materials and workmanship encountered in normal, and except to the extent otherwise expressly provided for in this statement, noncommercial use of this product, and shall not apply to the following, including, but not limited to: damage which occurs in shipment; delivery and installation; applications and uses for which this product was not intended; altered product or serial numbers; cosmetic damage or exterior finish; accidents, abuse, neglect, fire, water, lightning or other acts of nature; use of products, equipment, systems, utilities, services, parts, supplies, accessories, applications, installations, repairs, external wiring or connectors not supplied or authorized by SAMSUNG which damage this product or result in service problems; incorrect electrical line voltage, fluctuations and surges; customer adjustments and failure to follow operating instructions, cleaning, maintenance and environmental instructions that are covered and prescribed in the instruction book; reception problems and distortion related to noise, echo, interference or other signal transmission and delivery problems; picture tube (CRT) brightness related to normal aging, or burned-in images. SAMSUNG does not warrant uninterrupted or error-free operation of the product.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE LISTED AND DESCRIBED ABOVE, AND NO WARRANTIES WHETHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY AFTER THE EXPRESS WARRANTY PERIODS STATED ABOVE, AND NO OTHER EXPRESS WARRANTY OR GUARANTY GIVEN BY ANY PERSON, FIRM OR CORPORATION WITH RESPECT TO THIS PRODUCT SHALL BE BINDING ON SAMSUNG. SAMSUNG SHALL NOT BE LIABLE FOR LOSS OF REVENUE OR PROFITS, FAILURE TO REALIZE SAVINGS OR OTHER BENEFITS, OR ANY OTHER SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES CAUSED BY THE USE, MISUSE OR INABILITY TO USE THIS PRODUCT, REGARDLESS OF THE LEGAL THEORY ON WHICH THE CLAIM IS BASED, AND EVEN IF SAMSUNG HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOR SHALL RECOVERY OF ANY KIND AGAINST SAMSUNG BE GREATER IN AMOUNT THAN THE PURCHASE PRICE OF THE PRODUCT SOLD BY SAMSUNG AND CAUSING THE ALLEGED DAMAGE. WITHOUT LIMITING THE FOREGOING, PURCHASER ASSUMES ALL RISK AND LIABILITY FOR LOSS, DAMAGE OR INJURY TO PURCHASER AND PURCHASER'S PROPERTY AND TO OTHERS AND THEIR PROPERTY ARISING OUT OF THE USE, MISUSE OR INABILITY TO USE THIS PRODUCT SOLD BY SAMSUNG NOT CAUSED DIRECTLY BY THE NEGLIGENCE OF SAMSUNG. THIS LIMITED WARRANTY SHALL NOT EXTEND TO ANYONE OTHER THAN THE ORIGINAL PURCHASER OF THIS PRODUCT, IS NONTRANSFERABLE AND STATES YOUR EXCLUSIVE REMEDY.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

To obtain warranty service, please contact SAMSUNG at:

Samsung Electronics America, Inc.
105 Challenger Road
Ridgefield Park, NJ 07660-0511
1-800-SAMSUNG (7267864) – www.samsung.com

IMPORTANT WARRANTY INFORMATION REGARDING TELEVISION FORMAT VIEWING

Standard screen format televisions (4:3, the aspect ratio of the screen width to height) are primarily designed to view standard format full-motion video. The images displayed on them should primarily be in the standard 4:3 ratio format and constantly moving. Displaying stationary graphics and images on screen, such as the dark top and bottom letterbox bars (wide screen pictures), should be limited to no more than 15% of the total television viewing per week.

Wide screen format televisions (16:9, the aspect ratio of the screen width to height) are primarily designed to view wide screen format full-motion video. The images displayed on them should primarily be in the wide screen 16:9 ratio format, or expanded to fill the screen if your model offers this feature, and constantly moving. Displaying stationary graphics and images on screen, such as the dark side-bars on non-expanded standard format television video and programming, should be limited to no more than 15% of the total television viewing per week.

Additionally, viewing other stationary images and text such as stock market reports, video game displays, station logos, web sites or computer graphics and patterns, should be limited as described above for all televisions. Displaying any stationary images that exceed the above guidelines can cause uneven aging of picture tubes (CRTs) or Plasma Display Panels that leave subtle, but permanent burned-in ghost images in the television picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars. On television models that offer picture sizing features, use these controls to view the different formats as a full screen picture.

Be careful in the selection and duration of television formats used for viewing. Uneven CRT or Plasma Display Panels aging as a result of format selection and use, as well as other burned-in images, is not covered by your Samsung limited warranty.